

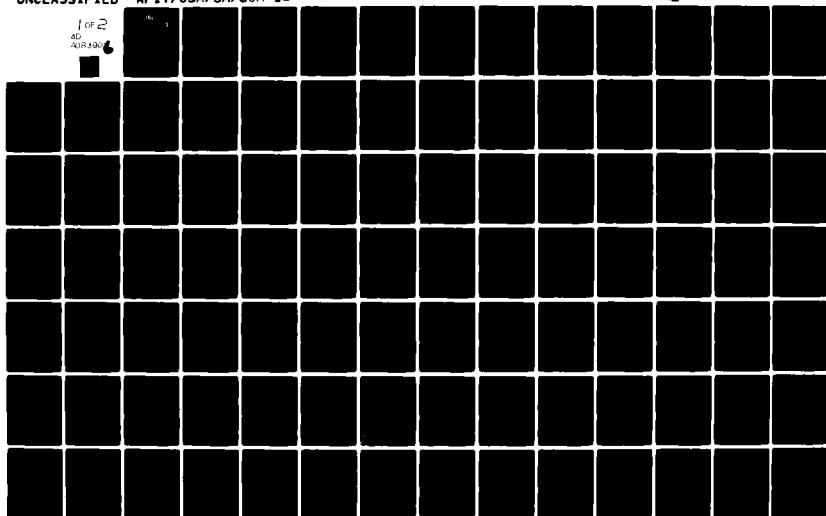
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AND CAREER INTENT OF D.P. PERSONNEL  
IN THE KOREAN MILITARY E.D.P. SYSTEM.

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The results were the following: The job satisfaction of the R.O.K. military data processing personnel appeared to be high while the career intent of the same population seemed to be low. The level of job satisfaction seemed to be closely related to satisfaction with the work itself and significantly affects career intent. But job environmental factors seemed to affect career intent more than job satisfaction. Among these job environmental factors, monetary rewards seemed to be the most important issue.

Based on these results, more attention should be placed on the improvement of the job environment to increase career intent. Monetary rewards should be used properly. Work redesign or enrichment might be effective in increasing job satisfaction.

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RELATIONSHIP BETWEEN JOB SATISFACTION  
AND CAREER INTENT OF D.P. PERSONNEL  
IN THE KOREAN MILITARY E.D.P. SYSTEM

THESIS

Presented to the Faculty of the School of Engineering  
of the Air Force Institute of Technology  
Air University  
in Partial Fulfillment of the  
Requirements for the Degree of  
Master of Science

by

Cho Kil Sang

Major ROKAF

Graduate Systems Management

March 1980

Approved for public release; distribution unlimited

## Preface

This research was conducted to seek better ways of keeping experienced data processing personnel in military systems. As one of these military data processing personnel, I hope this research will contribute to improving retention of military E.D.P. systems personnel.

I would like to express my sincere appreciation to those persons who have been always around me in my mind and in their mind. I wish to thank my thesis advisor, Professor Charles W. McNichols and reader, Professor Edward J. Dunne for their patient guidance. Without their encouraging help, this study would not have been completed.

I also wish to thank all the survey questionnaire respondents of this research and Lt.Col. Son Dong Hyun who helped me collect data from Korea.

My wife, Im Cheong Ja, and two daughters, Seong Yeon, Soo Yeon, and son, Yoo Il, who may not remember my face, will be looking forward to my return at this moment, and so am I.

Cho Kil Sang

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### Abstract

This study examined the relationship between several job related variables and the career intent and job satisfaction of R.O.K. military data processing personnel. The purpose is to provide useful information for retention and effective use of military data processing personnel.

Variables measured for 193 military data processing personnel using a Quality of Life survey were analyzed to determine their relationship to job satisfaction and career intent using multiple regression analysis. To assist in the selection of variables for the regression analysis, and to simplify the interpretation of results, contingency table analysis, pearson correlation analysis, frequency analysis, and factor analysis were used.

The results were the following: The job satisfaction of the R.O.K. military data processing personnel appeared to be high while the career intent of the same population seemed to be low. The level of job satisfaction seemed to be closely related to satisfaction with the work itself and significantly affects career intent. But job environmental factors seemed to affect career intent more than job satisfaction. Among these job environmental factors, monetary rewards seemed to be the most important issue.

Based on these results, more attention should be placed on the improvement of the job environment to increase career intent. Monetary rewards should be used properly. Work redesign or enrichment might be effective in increasing job satisfaction.

RELATIONSHIP BETWEEN JOB SATISFACTION  
AND CAREER INTENT OF DATA PROCESSING PERSONNEL  
IN THE KOREAN MILITARY E.D.P. SYSTEM

I. Introduction

Background

Usage of computers in Korea has increased tremendously since they were first introduced in the late 1960's. By 1978, 368 computers were in use in Korea, and 19 of them, including minicomputers, were used by the military (Ref 1:96-105). This tremendous increase in computer usage is due to Korean economic growth and the world-wide tendency to automate using computers. There is little doubt that this increase is expected to continue for a while. In the 1970's it was estimated that one out of every six men, women, and children had their daily lives affected by a computer. This statistic should change to one out of every two lives that will be affected on a daily basis by 1984 (Ref 2:7).

Accordingly, computer work is becoming popular as a career, and data processing personnel can be easily employed compared with other occupations. Many young talented people are entering the computer field, but it is still

difficult to obtain experienced, talented data processing personnel due to the increasing number of computer systems. The pay for data processing personnel is increasing, also, to keep the computer experts, but the treatment for these data processing personnel in the military cannot match that of the business world. A considerable number of data processing personnel learn computer operations in the military, and then use their skills in the business world. Considering the great importance of the national defense of Korea, the E.D.P. systems in the military should not be inferior to those of the business world. Retention of experienced computer experts in the military is a great concern in maintaining an effective military E.D.P. system.

#### The Purpose of This Study

The primary objective of this study is to provide useful information for retention and effective use of military data processing personnel. High career intent is desirable behavior for the proper functioning of the organization, and high job satisfaction is also considered to be a necessary condition in improving career intent and good performance. Therefore, it is necessary to analyze the underlying structure of job satisfaction and career intent. The detailed objectives of this study are to define and solve the following.

1. How many factors affect career intent and job satisfaction?
2. What are the relative levels of importance of these factors on career intent and job satisfaction?
3. How differently do those factors operate on specific demographic groups of data processing personnel? For example, male versus female, active service people versus civilian, etc.

### Hypotheses

This research effort attempts to identify and interpret those factors which can be used to improve career intent and job satisfaction of the R.O.K. military data processing personnel. Career intent may be correlated with job satisfaction and career intent can be thought of as a function of job satisfaction. But it is hard to think of career intent as a predictor of job satisfaction. Therefore, the hypotheses were formulated as follows,

Hypothesis 1; Job satisfaction significantly affects the career intent of military data processing personnel.

Hypothesis 2; Job environmental factors affect career intent more than job satisfaction.

Hypothesis 3; Some factors significantly affect job

satisfaction but do not affect career intent.

These hypotheses were tested for each meaningful group and job environmental factors were divided into several factors.

#### Limitations

1. One limitation is the wording of the measurements. These measurements (job satisfaction, career intent, etc.) were studied and validated in the West. Koreans may have a different behavior structure. They may have different values and different motives. They have different environments. Individual behavior in organizations is a function of the person and of his or her environmental situation (Ref 3:217). The data were collected mostly from Seoul, the capital city of Korea, and computer workers are rather educated people. Educated city dwellers may have a more westernized behavior structure compared to others.

2. Another limitation is the language barrier. The questionnaire for this research was composed in English and then translated into Korean by the researcher to get responses from Korea. If we had no experience of roses, "love like a red rose" would have no more meaning than to say "love like a slithey tove" (Ref 4:141-142). An American says "One eats like a horse" referring to a



heavy eater. A Korean says "One eats like a pig".  
Moreover, the chances of error depend on the researcher's ability in English.

### Assumptions

The assumptions on which this research is based are,  
Assumption 1; The survey data is valid. This is a necessary assumption for this research. The questionnaire was sent to Korea and collected from Korea. All of the respondents are members of the R.O.K. military data processing personnel. The researcher believes that they answered with their own opinions, and that the number of observations in this research is large enough to support statistical analysis.

Assumption 2; The job satisfaction measurement used in this survey must be assumed to be valid. Since the researcher adopted Hoppock's four question general job satisfaction blank, a method which has been accepted and used for nearly 40 years; even though the survey data of this research was collected from Koreans.

Assumption 3; The career intent measurement used in this survey must be assumed to be valid. The researcher adopted the career intent measurement

question from the USAF Quality of Air Force Life questionnaire developed by Manley, Gregory, and McNichols. This single question directly asks about career intent and is the question now being used in the USAF.

Assumption 4; That the data is of interval quality within the limits of approximation used. Some ordinal data was used as if gathered on an interval scale.

## II. Research Methodology

### Data Collection

Sample Population. It was decided to send the questionnaire to Seoul, the capital city of Korea, because the M.N.D. (the Ministry of National Defense) and the headquarters of each military branch are located in Seoul and they have their own computer divisions. It was thought that it would be easy to collect enough data to analyze from each computer division. An exception was the Air Force data for which the questionnaire was sent to Seoul and Taegu, the third largest city of Korea. The researcher belongs to the Air Force and once worked at the Taegu computer division. That fact made the researcher think it would also be possible to collect data from Taegu. M.N.D. data are included in this research even though there are no active duty service people in the M.N.D. computer division. Because they are working under the military system, they may have their own behavior structure which will be interesting to compare with the other military branches.

Sample Group. 193 observations were collected. The number of male respondents was 126 and the number of female respondents was 57. The number of observations received from each military branch was M.N.D., 41; Army, 45; Navy, 26; and Air Force, 81. Civilians who responded numbered 106 and active duty service people numbered 87. Among the 87 active duty service people, 70 were officers. All of the respondents from M.N.D. were civilians and the number of civilians from the military branches was 65. The ratio of civilians to active duty service people in the military branches was approximately 3:4 (65:87).

192 people out of these 193 respondents had more than a high school education, 70 of them had more than a college degree, and 10 of them had a master's degree.

The distribution of respondents by years of experience was skewed with the number of respondents decreasing as years of experience increased (see Figure 2.1). Seventy percent of the respondents had less than four years of experience.

Questionnaire. A subset of questions from the U.S. Air Force Quality of Air Force Life survey developed by Manley, Gregory, and McNichols was used in this research. This questionnaire has been in use nearly five years. It was developed for the analysis of many aspects of

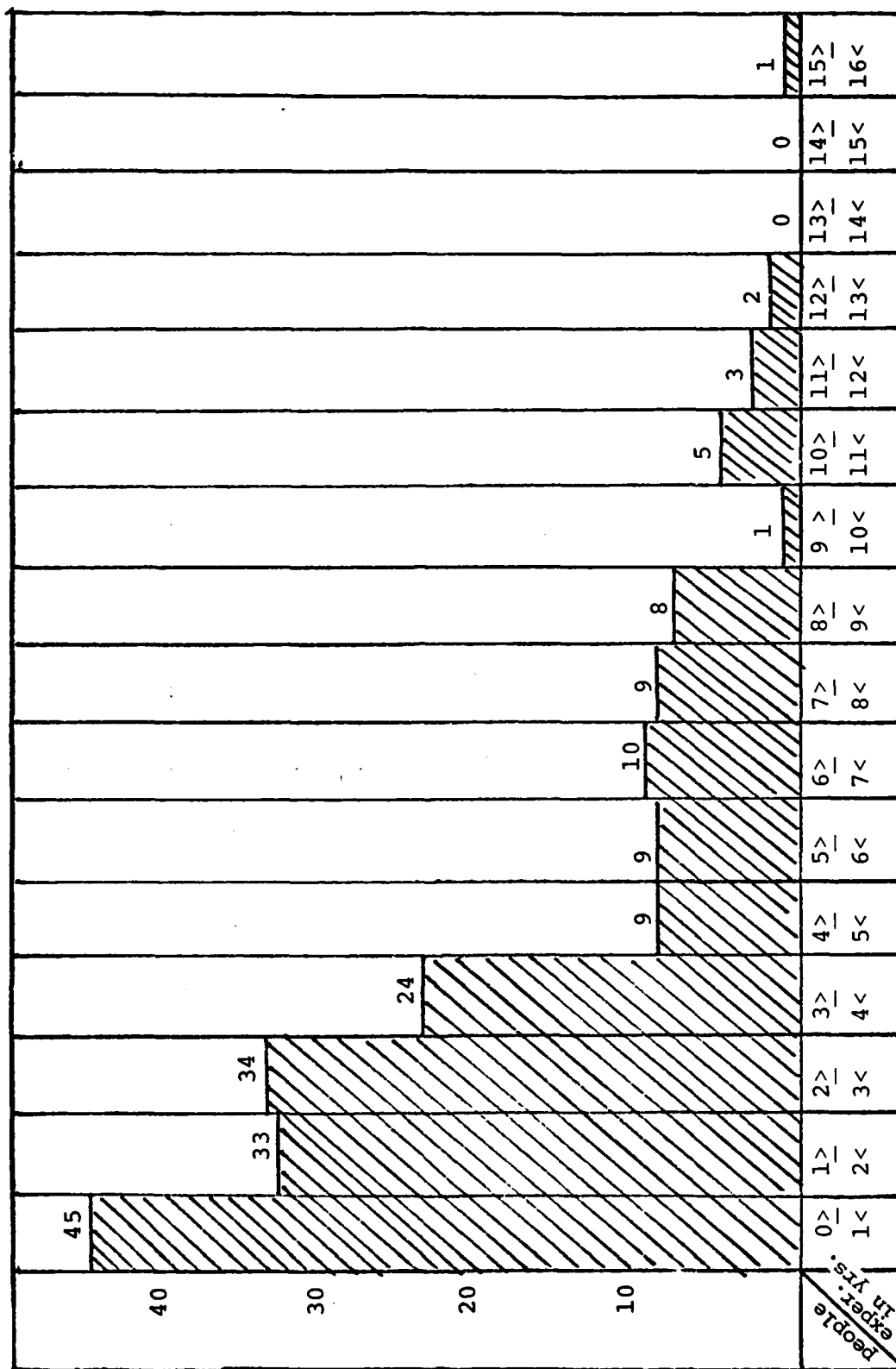


Figure 2.1. Computer Experience in Years.

military life. It deals with job satisfaction, career intent, and military-work-related environmental factors. Therefore, the researcher considered this questionnaire to be adequate for this research with slight changes for R.O.K. military data processing personnel. Some questions were deleted, some were rearranged for Korean people, and some questions related to computer work were added (see Appendix A).

The questions can be grouped as follows:

- o Demographic questions,
- o Job satisfaction and career intent measurements,
- o Job environmental questions,
- o Quality-of-life questions.

Demographic Questions. Demographic data was needed to categorize the respondents into applicable subpopulations. But some of these demographic questions could be used as ordinal data rather than nominal data. The following ordinal questions were used as potential predictors of job satisfaction and career intent.

- o Question 1 (Rank): This question was also used to divide the sample group into service type (active duty service or civilian). Usually civilians can quit the military job whenever they want while the

active duty service people have to complete their contracted period. The young low rankers usually do not have firmly set occupational goals. These facts may affect career intent and job satisfaction for these subgroups.

- o Question 2 (Military Branch): The sample group was divided into the following groups.

- A. M.N.D.
- B. Army
- C. Navy
- D. Air Force

In the M.N.D., there are no active duty service people and each military branch has their own fringe benefits for their data processing personnel.

- o Question 3 (Total Years in Military): This question was treated as if interval scaled.
- o Question 5 (Number of Dependents): This question was treated as if interval scaled.
- o Question 6 (Sex): The sample group was divided into:

- A. Male
- B. Female

Few Korean women have jobs and usually do not intend to be career women.

- o Question 7 (Education Level): The sample group was divided into:

- A. Less than high school,
- B. High school education,
- C. College degree,
- D. Master's degree.

- o Question 8 (Marital Status): The sample group was divided into:

- A. Married,
- B. Never been married,
- C. Have been married but now bachelor.

In Korea, it is difficult to get a job or change jobs. People who have dependents tend to cling to their job to support their dependents. Bachelors may feel more free to change jobs.

- o Questions 9 and 10 (Work Assignment): The questions are:

- Q. 9. What is your present assignment?
- Q. 10. If you would like to continue computer work, which one do you like to do?

The answers to both questions are:

- A. Administering people,
- B. Key puncher,
- C. Computer programmer,
- D. Operator (including data maintenance people),
- E. System designer.



Computer jobs can be divided into several functional areas and each functional area has different requirements and needs different abilities. So career intent or job satisfaction may be affected by the specific work assignment.

- o Question 19 (Family Size): This question was used as is interval scaled.
- o Question 33 (Favorite Subject): The answers to this question are:
  - A. Language,
  - B. Mathematics,
  - C. Science,
  - D. Art,
  - E. Social Science.

This question will permit identification of favorite subjects associated with high or low job satisfaction and career intent.

Job Satisfaction and Career Intent Measurement. To measure these two quantities, each response was assigned a numerical value as follows:

- |      |      |
|------|------|
| A. 1 | E. 5 |
| B. 2 | F. 6 |
| C. 3 | G. 7 |
| D. 4 |      |

- o Career Intent: The career intent question from the USAFQAFI was used for this purpose. This single question (Question 11 in the Korean survey) directly asks career intent of the individual. Low numeric scores indicate high career intent and high numeric scores indicate low career intent.
- o Job Satisfaction: Hoppock's four question general job satisfaction blank (Questions 22, 23, 25, and 26 in the Korean survey) was used to measure the Hoppock job satisfaction. The questions ask four impressions of the individual toward his or her job. The four impressions are:
  - o How much of the time the respondent is satisfied with his or her job (Question 22).
  - o How well the respondent likes his or her job (Question 23).
  - o How willing the respondent would be to change his or her job (Question 25).
  - o How the respondent thinks his or her feelings about his or her job compare with the feelings of other people about their jobs (Question 26).

The score for the Hoppock measure is calculated as follows:

$$\text{Hopp score} = Q23 + Q25 + 16 - Q22 - Q26.$$

The form of the Hoppock score results from the fact that low scores in Questions 23 and 25 indicate low job satisfaction while low scores in Questions 22 and 26 indicate high job satisfaction. The range of the

Hopp score is from 4 to 28, with 4 representing the lowest and 28 the highest job satisfaction. This job satisfaction is defined by Robert Hoppock as follows:

"Any combination of psychological, physiological, and environmental circumstances that causes a person truthfully to say, "I am satisfied with my job"" (Ref 13:47).

Job Environmental Questions. Job environmental questions which are potentially related to job satisfaction and career intent were also included in this questionnaire. The selection of these job environmental questions was based upon the need to examine military life and computer work. Some perceptual questions about the job environment were included in these questions to improve understanding the behavior of the sample group. Because perception can motivate individual behavior, and it is impossible to include all the objective measures describing a work situation.

Included job environmental perceptual questions are:

- o How the respondent thinks his or her military pay compares with pay in civilian employment for similar work (Question 14).
- o If the respondent leaves the military system, what difficulty does the respondent feel he or she would have in getting a new job in private industry comparable with his or her current job (Question 15).

- o What factor from a list of six specific factors provided would influence the respondent to make his or her military job a career (Question 20).
- o What factor from a list of seven specific factors provided would influence the respondent not to make his or her military job a career (Question 21).
- o The degree to which the respondent feels that the work he or she is doing now is appropriate to the grade he or she holds (Question 24).
- o How challenging the respondent considers his or her present job (Question 27).

The remaining job environment questions are:

- o Total years in experience of computer work (Question 4).
- o Amount of vacation (Question 12).
- o Amount of overwork (Question 13).
- o Chances of saving (Question 16).
- o House possession (Question 17).
- o House space (Question 18).
- o Job autonomy (Question 28).
- o Relationship with supervisor (Question 29).
- o Job recognition from supervisor (Question 30).
- o Years after last promotion (Question 31).
- o Years before next promotion (Question 32).

Quality of Life Questions. Quality of life is a function of both the objective conditions and subjective attitudes involving a defined area of concern. Objective conditions are numerically measurable artifacts of a physical event, for example, air pollution in parts per million of sulfur dioxide, sociological events or economic events (Ref 5:251-252). Only subjective elements of the quality of life were measured in this questionnaire. John P. vanGigch proposed to compute an overall subjective measure of satisfaction,  $\hat{S}_j$ , with a quality of life factor as:

$$\hat{S}_j = \frac{1}{P} \sum_{i=1}^P W_{ij} S_{ij}$$

where

$j$  ; Quality of life factor

$i$  ; Individual

$S_{ij}$  ; The subjective or satisfaction measure of the same factor for the same individual

$W_{ij}$  ; The importance weighting that an individual attaches to the particular factor relative to all other factors on an ordinal scale

(Ref 5:252).

The quality of life questions were included not only to measure the quality of life, but to allow investigation of quality of life relationships with job satisfaction and career intent.

Included quality of life questions are from Question 34 to Question 51 in this questionnaire. Among these questions, even numbered questions are importance weightings ( $W_j$ ) and odd numbered questions are subjective satisfaction measure ( $S_j$ ). The factors are:

- o Economic standard (Questions 34 and 35),
- o Economic security (Questions 36 and 37),
- o Free time (Questions 38 and 39),
- o Work (Questions 40 and 41),
- o Leadership/supervision (Questions 42 and 43),
- o Equity (Questions 44 and 45),
- o Personal growth (Questions 46 and 47),
- o Personal standing (Questions 48 and 49),
- o Health (Questions 50 and 51).

#### Data Treatment

Several statistical analysis methods were used in this research following the procedure which is shown in Figure 2.2.

First, frequency distributions of career intent, Hoppock job satisfaction, all demographic questions, and some ordinal questions were examined for all respondents. Some demographic and ordinal questions which are useful in explaining the behavior of the sample about their career intent and job satisfaction were selected according to their distributions. These results were used to present a general

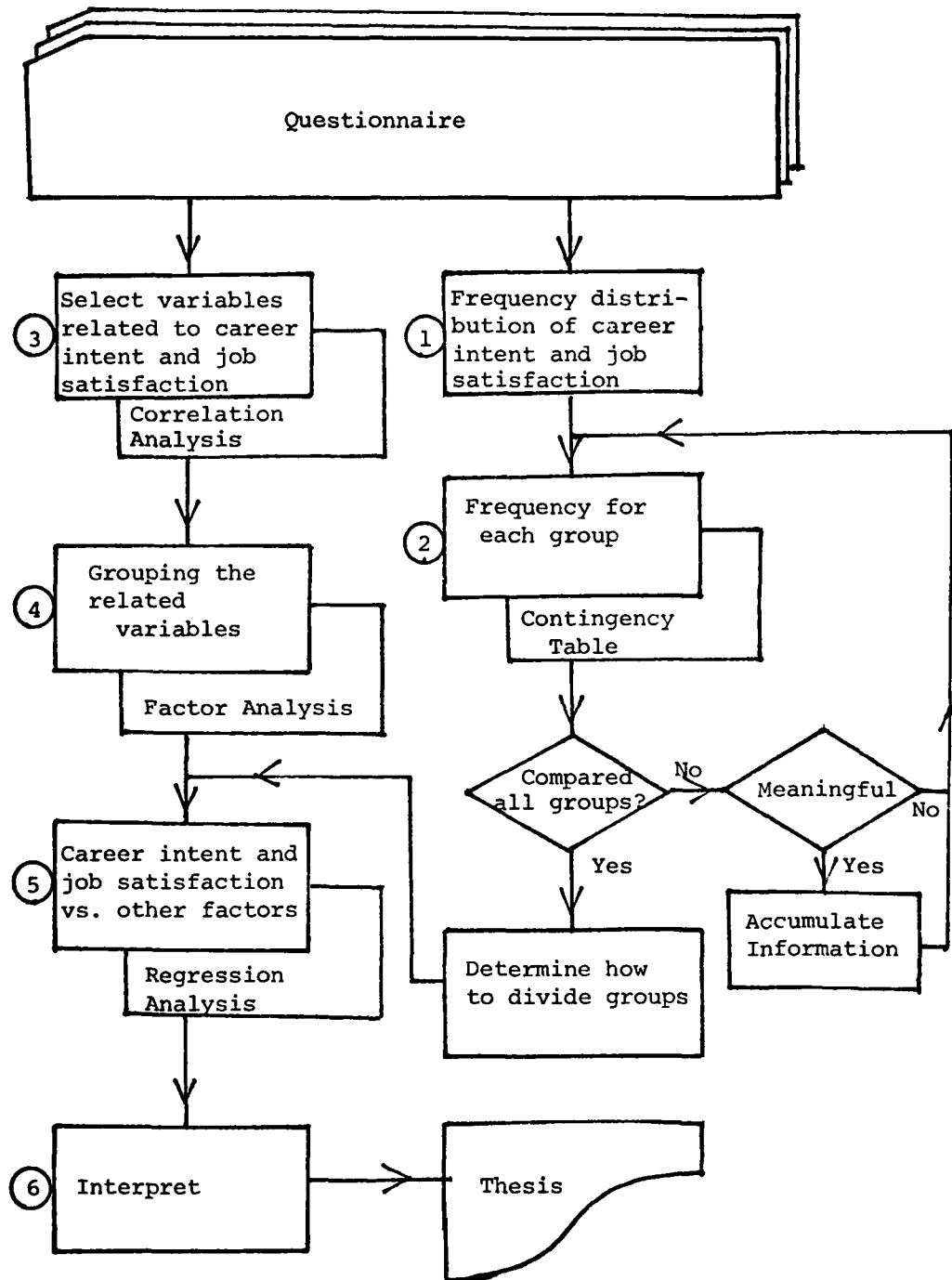


Figure 2.2. General Data Treatment.

picture of the behavior and the work environment of R.O.K. military data processing personnel. The subprogram "FREQUENCY" in the SPSS package was used at this step.

Second, frequency distributions for the demographic questions selected in the frequency analysis were examined for high and low job satisfaction groups, and high and low career intent groups. The SPSS subprogram "CROSSTABS" was used to identify significantly different groups. These groups were used to examine differences in career intent and job satisfaction models in the regression analysis as can be seen by the arrows in Figure 2.2.

Third, two correlation analyses were performed. One was for the correlation between job satisfaction and other variables. The other was for the correlation between career intent and other variables. The SPSS subprogram "PEARSON CORR" was used after numerical values of some variables were transformed. The variables highly correlated with job satisfaction and career intent were selected and used in the subsequent factor analysis.

Fourth, the variables highly correlated with career intent, including job satisfaction, were grouped into a smaller number of factors. The SPSS subprogram "FACTOR" was used for this analysis. The number of factors was determined by examination of the eigen values and these factors were interpreted.



Fifth, three types of linear relationships between the criterion variable and predictor variables were examined as follows:

- o Job satisfaction with 14 predictor variables chosen on the basis of the correlation analysis.
- o Career intent with 23 predictor variables chosen on the basis of the correlation analysis.
- o Career intent with six factors determined from the factor analysis.

The SPSS subprogram "REGRESSION" was used and each factor's significance and weights on job satisfaction and career intent were examined. Group differences were also examined.

Finally, the data from these statistical analyses were interpreted and used to test the hypotheses which were specified in Chapter I. Some theories in behavioral science were also used in an attempt to understand and interpret the behavior of the R.O.K. military data processing personnel.

Contingency Table Analysis. Two kinds of possible dependencies were investigated:

1. The dependence between the job satisfaction and demographic variables.
2. The dependence between career intent and demographic variables.

The job satisfaction scale was divided into high job satisfaction and low job satisfaction. The career intent scale was divided into high career intent and low career intent. Some demographic variables were divided into nominal categories. If the two schemes of classification are independent, estimated expected value of the observed cell frequency,  $N_{ij}$ , for a contingency table is equal to the product of its respective row and column totals divided by the total frequency; that is,

$$\hat{E}(N_{ij}) = \frac{r_i c_j}{N}$$

where

$N_{ij}$  = Observed cell frequency in row  $i$  column  $j$ .

$N$  = Total number of observations.

$r_i$  = The total number of observations in row  $i$ .

$c_j$  = The total number of observations in column  $j$ .

The chi-square test was used to test the null hypothesis that the two schemes of classification are independent.

The chi-square statistic is,

$$\chi^2 = \sum_{j=1}^c \sum_{i=1}^r \frac{[N_{ij} - \hat{E}(N_{ij})]^2}{\hat{E}(N_{ij})}$$

where

$c$  ; The number of columns.

$r$  ; The number of rows.

The degrees of freedom associated with a contingency table possessing  $r$  rows and  $c$  columns will always equal  $(r-1)(c-1)$ .

The value of the test statistic,  $\chi^2$ , was computed and compared with the critical value of  $\chi^2_0$  possessing  $(r-1)(c-1)$  degrees of freedom at a specific significance level (Ref 8:502-515).

Correlation Analysis. In correlation analysis, two measures are made on each data point in the sample. Before doing the regression analysis, an estimate of the degree of association of job satisfaction and career intent with each of the interval scaled variables included in the questionnaire was investigated in order to select highly correlated variables. Pearson correlation analysis used in this study is based on the assumption that the distribution of the variables is bi-variate normal (Ref 10:30).

Testing for independence is equivalent to testing that the correlation coefficient,  $\rho$ , is equal to zero. The maximum likelihood estimate of  $\rho$  is given by the sample correlation coefficient

$$r = \frac{\sum (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum (X_i - \bar{X})^2 \sum (Y_i - \bar{Y})^2}}$$

where

$X_i, Y_i$ ; A random sample.

$\bar{X} = \frac{1}{N} \sum X_i.$

$\bar{Y} = \frac{1}{N} \sum Y_i.$

$N =$  The sample size.

The summation is over the  $N$  sample values (Ref 12:68).

Significance tests reported for each coefficient are derived by the SPSS computer package using the student's t test with N-2 degrees of freedom for the value of the statistic;

$$t = r \left[ \frac{N-2}{1-r^2} \right]^{1/2}$$

where N is the sample size.

A two-tailed test of the statistical significance of each coefficient was used because the researcher does not have an explicit hypothesis concerning expected sign of the correlation. That is

$H_0$ ; null hypothesis	$H_1$ ; alternate hypothesis	Reject $H_0$ if
$\rho = 0$	$\rho \neq 0$	$ t  > t_{\alpha/2, n-2}$

(Ref 7:4-5).

#### Factor Analysis; the Principal Component Technique.

Factor analysis was performed with the variables selected in the previous correlation analysis. The objective of this factor analysis is to identify the true dimensionality of the set of variables which are highly correlated with either job satisfaction or career intent, and interpret these factors.

The basic relation from which the principal component factor analysis procedure was derived is,

$$X_{ij} = A_{j1}F_{i1} + A_{j2}F_{i2} + \text{-----} + A_{jn}F_{in} + e_{ij}$$

where

$X_{ij}$  ; The value of variable j for individual i.

$F_{ik}$  ; Factor scores.

$A_{jk}$  ; Factor loading (each is a measure of the importance of factor k in measuring variable j).

$e_{ij}$  ; Error term.

(Ref 11:209).

The error term  $e_{ij}$  is assumed to be zero in the principal component model and approximation was made as follows:

$$Z_j = A_{j1}F_1 + A_{j2}F_2 + \text{----} + A_{jn}F_n$$

where

$Z_j$  ; Approximation of  $X_j$ .

(Ref 9:470).

The objective of principal component analysis procedure is to find values of  $A_{jk}$  and  $F_k$  which are best in the least square sense (Ref 7:6-8). In that context, if either  $A_{jk}$  or  $F_k$  is found, the other can be found easily. In the principal component analysis procedure, the eigenvalues of the correlation matrix, representing the amount of variance explained by each factor, are calculated and used to determine the number of factors which must be retained. The criterion used to determine the number of factors to retain was to keep those associated with eigenvalue magnitudes greater than or equal to 1.0. This assures that each retained factor explains at least as much of the total variance as each original variable.

Interpretation of the principal components was difficult. To simplify this interpretation, an orthogonal rotation of axes was performed. Several types of rotation methods were tried, but the varimax method produced the most easily interpreted results in most cases.

Once a factor score coefficient matrix was obtained from the SPSS subprogram "FACTOR", factor scores were calculated for the later regression analysis as follows:

$$F_{ik} = \sum_{j=1}^n [b_{jk} X_{ij} - \bar{X}_j] / S_j$$

where

$F_{ik}$  ; Factor scores for individual i.

$b_{jk}$  ; Factor score coefficient of variable j for factor k.

$X_{ij}$  ; The value of variable j for individual i.

$\bar{X}_j$  ; Mean value of variable j.

$S_j$  ; Standard deviation of variable j.

(Ref 7:6-39).

Regression Analysis. The regression model is based upon the assumption of a linear relationship between the criterion variable and the predictor variables. The least-squares technique is used to estimate coefficients for a regression model. The linear regression model relating the response, Y, to the independent variables  $X_1, X_2, \dots, X_k$  is of the form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \epsilon$$

where

$Y$  ; Criterion variable.

$X_1, X_2, \dots, X_k$ ; Observed predictor variables

$\beta_0$  ; Constant term.

$\beta_1, \beta_2, \dots, \beta_k$ ; Unknown parameters and are estimated from observations  $Y$  and  $X_1, X_2, \dots, X_k$ .

$\epsilon$  ; Random error term.

By assuming  $E(\epsilon) = 0$ ,

$$E(Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k$$

(Ref 8:378).

For this research, two kinds of regression analysis were performed.

One is,

$$\text{Hopp job satisfaction} = \beta_0 + \sum \beta_j X_j$$

where  $X_j$  is  $j$ th Hopp-job-satisfaction-related variable.

The other is,

$$\text{Career intent} = \beta_0 + \sum \beta_j X_j$$

where  $X_j$  is  $j$ th career-intent-related variable including Hopp job satisfaction.

Forward stepwise inclusion was used as the regression strategy in this research. Independent variables are entered only if they meet certain statistical criteria. The order of inclusion is determined by the respective contribution of each variable to explained variance (Ref 9:345).

### Behavioral Science Background

In an attempt to understand and interpret the statistical analysis results, it was necessary to investigate some theories of behavioral science. Among these theories, the following two theories were primarily used, although some other theories and managerial concepts were referenced.

Expectancy Theory. The general "expectancy theory" model of human motivation provides one way of analyzing and predicting which courses of action an individual will follow when he has the opportunity to make personal choices about his behavior. This expectancy theory takes the viewpoint in between two extreme theories, the behavioristic and phenomenological views. In the behavioristic view, all human behavior is environmentally controlled. In the phenomenological view, scientific understanding of a person and what determines his behavior cannot be obtained from behavioral observation. These two extreme theories have some weak points in explaining human behavior. So expectancy theory was used to understand and interpret the behavior of the sample of this research. The expectancy model posits that motivational "force" to engage in a behavior is a multiplicative function of (1) the expectancies the person holds about what outcomes are likely to result from that behavior and (2) the valence of these outcomes. It can be symbolized as follows.



$$MF = E \times V$$

where

MF ; Motivational force.

E ; Expectancy (the beliefs individuals hold about what leads to what outcomes).

V ; Valence (the degree to which the individual desires the outcomes in question).

An outcome can become valent for an individual in two ways:

1. An outcome can be directly satisfying one or more of the person's needs.
2. An outcome (this outcome is instrumental) can be valent because it leads to other outcomes which satisfy an individual's needs.

Since there are likely to be a number of different outcomes expected for any given behavior, the terms in the equation are summed across those outcomes to arrive at a single figure reflecting the attractiveness of the behavior being contemplated (Ref 14:52-56).

Hierarchy of Human Needs. Maslow's classification of human needs can be summarized as in Figure 2.3.

1. Physiological need  
(Existence need)
2. Safety (security need)
3. Social need
4. Esteem
5. Self actualization

Figure 2.3. Hierarchy of Human Needs (Listed in Order from Lowest to Highest).

(Ref 3:239).

But about the order of the needs and relations between the needs, the recently pervasive following view was adopted in this research.

There is strong evidence to support the view that unless the existence needs are satisfied none of the higher order needs will come into play. There is also some evidence that unless security needs are satisfied, people will not be concerned with higher order needs. There is, however, little evidence to support the view that a hierarchy exists once one moves above the security level. Thus, it probably is not safe to assume more than a two-step hierarchy, with existence and security needs at the lower level and all the higher-order needs at the next level. (Ref 14:43).

### III. Data Analysis - Results

This chapter includes mostly statistical results. Some interpretation and conclusions were also drawn. An effort was made to limit these interpretations and conclusions to those based on the statistical results. The overall interpretation is presented in the next chapter.

#### Frequency Analysis

The range of Hoppock job satisfaction scores is from 4 to 28 and the midpoint is 16, so Hopp scores of more than 16 are considered high job satisfaction and Hopp scores of less than 16 are considered low job satisfaction. In this sense, the data processing personnel in the R.O.K. military system have high job satisfaction. Table 3.1 shows that 111 people report high job satisfaction and 58 people report low job satisfaction. This indicates that the number of people who have high job satisfaction is almost twice as many as the number of people who have low job satisfaction.

Table 3.2 shows that the career intent of respondents is relatively low. Fifty-eight percent of this sample group (112 people) have low career intent and thirty-one

TABLE 3.1

## Hopp Job Satisfaction

(Hopp Scores =  $Q23+Q25+16-Q22-Q26$ )

Hopp Score	Frequency	Classification
4-12	24	58 (30.05%) Low Job Satisfaction (Hopp Scores Lower Than 16)
13	8	
14	14	
15	12	
16	24	24 (12.43%)
17	21	111 (57.51%) High Job Satisfaction (Hopp Scores Higher Than 16)
18	24	
19	18	
20-28	48	

TABLE 3.2

## Career Intent (Question 11)

Questions	Frequency	
A. Definitely intend to make the (Army, Navy, Air Force, M.N.D.) a career	52 (26.9%)	60 (31.1%) Higher Career Intent
B. Most likely will make the (Army, Navy, Air Force, M.N.D.) a career	8 (4.1%)	
C. Undecided	21 (10.9%)	21 (10.9%)
D. Most likely will not make the (Army, Navy, Air Force, M.N.D.) a career	72 (37.3%)	112 (58.0%) Lower Career Intent
E. Definitely do not intend to make the (Army, Navy, Air Force, M.N.D.) a career	40 (20.7%)	

percent (60 people) have high career intent. The number of people who have high career intent is about half of the number of people who have low career intent. Additionally, Tables 3.3 and 3.4 show 38.5 percent (74 people out of 192) responded with answer G, "I do not intend to make the military job a career," for Question 20 and only 16.7 percent (32 people out of 192) responded with answer H, "Nothing Unfavorable," for Question 21. These results show that many people do not intend to remain in the military system. From these results, it appears that in general the career intent of the R.O.K. military data processing personnel is low while the job satisfaction of these same people is high.

Tables 3.3 and 3.4 summarize the following significant causes of the R.O.K. military data processing personnel behavior.

The factors which influence the respondents to make the military their career are:

- o Computer job (challenging, provides sense of accomplishment, etc.) (15.6%).
- o Opportunity for training and education (14.1%).
- o Opportunity to serve the country (14.1%)
- o The retirement system (9.9%).

TABLE 3.3

## Survey Result of Question 20

Answers	Frequency	%
A. Opportunity for training and education	27	14.1
B. My job (challenging, provides sense of accomplishment, etc.)	30	15.6
C. Pay and allowance	9	4.7
D. Promotion system and opportunity	6	3.1
E. The retirement system	19	9.9
F. Opportunity to serve my country	27	14.1
G. I do not intend to make the (Army, Navy, Air Force, M.N.D.) a career	74	38.5
TOTAL	192	100.0

Question 20 is "Select the One Factor Which Today Would Influence You the Most to Make the (Army, Navy, Air Force, M.N.D.) a Career."

TABLE 3.4

## Survey Result of Question 21

Answers	Frequency	%
A. My job (little challenge, little sense of accomplishment, etc.)	9	4.7
B. Pay and allowances	54	28.1
C. Promotion selection system	6	3.1
D. Promotion opportunity	13	6.8
E. Little "say" in future assignment	49	25.5
F. The people	5	2.6
G. The policies and procedures	24	12.5
H. Nothing unfavorable	32	16.7
TOTAL	192	100.0

Question 21 is "Select the One Factor Which Today Would Influence You the Most Not to Make the (Army, Navy, Air Force, M.N.D.) a Career."

The factors which influence the respondents not to make the military their career are:

- o Pay and allowances (28.1%).
- o Little "say" in future assignment (25.5%).
- o The policies and procedures (12.5%).

These factors represent areas in which actions can be considered to increase job satisfaction and career intent of R.O.K. military data processing personnel.

Table 3.5 shows that more than half (61.4%) of the sample want to change their current work assignment. Administering and system designing appeared to be popular functional areas while key punching and computer operating are not popular. No one from other functional areas wanted key punching and less than 9% of the sample, excluding current operators, wanted operating. So it is assumed that many individuals want more challenging work.

For the quality of life factors, scores on economic standard and economic security were significantly lower than those for other quality of life factors as can be seen in Table 3.6.

Tables 3.7 and 3.8 summarize perceptual data about the military pay and feelings about getting a new similar job. Table 3.7 indicates that more than 95% of this sample population thinks that military pay is less than the pay in private industry employment. Table 3.8 shows



TABLE 3.5  
Work Assignment Desire  
Number of People  
(Row Percentage  
Column Percentage)

Desired Work Assigned Work	Administering	Key Punching	Computer Programming	Computer Operating	System Designing	Total
Administering	13 (56.52) 33.33	0	3 (13.04) 7.32	3 (13.04) 13.04	4 (17.4) 5.19	23 (11.92)
Key Punching	8 (17.8) 20.51	13 (28.28) 100.00	10 (22.22) 24.39	10 (22.22) 43.48	4 (8.89) 5.19	45 (23.32)
Computer Programming	10 (13.33) 25.64	0	21 (28.00) 51.22	2 (2.66) 8.70	42 (56.0) 54.55	75 (38.86)
Computer Operating	2 (8.3) 5.13	0	7 (29.2) 17.07	8 (33.3) 34.78	7 (29.2) 9.09	24 (12.44)
System Designing	6 (23.08) 15.38	0	0	0	20 (76.92) 25.97	26 (13.47)
TOTAL	39 (20.21)	13 (5.74)	41 (21.24)	23 (11.92)	77 (39.9)	193

TABLE 3.6

## Quality of Life Factor

Quality of Life Factor	Mean $(\hat{S}_j = \frac{1}{P} \sum_{i=1}^P W_{ij} S_{ij})$	Cases
Economic Standard	15.6667	192
Economic Security	16.9427	192
Free Time	24.3125	192
Work	24.9844	192
Leadership/Supervision	22.7617	193
Equity	23.3938	193
Personal Growth	25.3005	193
Personal Standing	22.5751	193
Health	22.7120	191

TABLE 3.7

## Survey Result of Question 14

Answers	Frequency	%
A. Military pay is far higher than civilian	0	0.0
B. Military pay is somewhat higher than civilian	1	0.5
C. Both about equal	8	4.2
D. Military pay is somewhat less than civilian	62	32.5
E. Military pay is far less than civilian	120	62.8

Question 14 is "How Do You Think Your Military Pay (including all allowances and fringe benefits) Compares With Pay in Private Industry Employment for Similar Work?"

TABLE 3.8  
Survey Result of Question 15

Answers	Frequency	%
A. Strongly disagree	59	30.6
B. Disagree	64	33.2
C. Undecided	55	28.5
D. Agree	13	6.7
E. Strongly agree	2	1.0
TOTAL	193	100.0

Question 15 is: "If I Left the (Army, Navy, Air Force, M.N.D.) Tomorrow, I Think it Would be Very Difficult to Get a Job in Private Industry With Pay, Benefits, Duties, and Responsibilities Comparable With Those of My Present Job."

that 64% of this sample population thinks that it would not be difficult to get a similar job in private industry.

#### Contingency Table Analysis

The SPSS subroutine "CROSSTABS" was used for this analysis. The dependencies of job satisfaction and career intent against each demographic variable were examined. The variables were divided as follows:

##### Career Intent

- o High career intent (score less than 3).
- o Mid point (score 3).
- o Low career intent (score greater than 3).

##### Hopp Job Satisfaction

- o Low job satisfaction (Hopp score less than 16).
- o Mid point (Hopp score 16).
- o High job satisfaction (Hopp score greater than 16).

Demographic variables were divided using the following categories:

##### Service Type

- o Active duty service people.
- o Civilian.

##### Military Branch

- o M.N.D.
- o Army.
- o Navy
- o Air Force.

Sex

- o Male.
- o Female.

Education

- o Less than high school.
- o High school education.
- o College degree.
- o Master's degree.

Marital Status

- o Married.
- o Single.

Only one respondent responded Answer C and Answer B and C, both represent single respondent, so this variable was collapsed into two groups.

Work Assignment

- o Administrating people.
- o Key puncher.
- o Computer programmer.
- o Operator (including data maintenance personnel).
- o System designer.

Favorite Subject

- o Language.
- o Mathematics.
- o Science.
- o Art.
- o Social Science.

A chi-square test of statistical significance was used to test for independence of pairs of variables. The results of this contingency table analysis are summarized in Table 3.9. The value of the chi-square statistic and degrees of freedom determine the significance level. A small numeric value of the significance level implies dependency between the two variables. Since the sample size used in this research is relatively small and further detailed examination was accomplished using regression analysis, a significance level of 0.1 or less was used to select meaningful groups. Meaningful categorizations identified at this point and used in later analyses are:

For Career Intent

- o Marital status.

For Job Satisfaction

- o Favorite subject.

Pearson Correlation Analysis

The following correlation analyses were performed:

- o Job satisfaction with interval scaled variables.
- o Career intent with interval scaled variables.

The following variables were assumed to be interval scaled:

- o Years in military (Question 3).
- o Years in experience of computer work (Question 4).

TABLE 3.9  
Contingency Table Analysis Results

Job Satisfaction			Demographic Variables	Career Intent		
Raw Chi Square	Degrees of Freedom	Significance		Raw Chi Square	Degrees of Freedom	Significance
16.93841	8	*0.0308	Favorite Subject	7.15031	8	0.5205
3.32015	2	0.1901	Service Type	1.60220	2	0.4488
7.70627	6	0.2604	Military Branch	8.86875	6	0.1811
2.86557	2	0.2386	Sex	0.75579	2	0.6853
4.66093	6	0.5880	Education	4.47107	6	0.6132
1.49401	2	0.4738	Marital Status	12.24665	2	*0.0022
6.56428	8	0.5843	Work Assignment	7.06169	8	0.5300

\* Results significant at the .05 level.



- o Number of dependents (Question 5).
- o Amount of vacation (Question 12).
- o Amount of overtime work (Question 13).
- o Perception of the military pay (Question 14).
- o Perception of chance of new job (Question 15).
- o Chance of savings (Question 16).
- o House ownership (Question 17).
- o House size (Question 18).
- o Family size (Question 19).
- o Hoppock's job satisfaction questions (Questions 22, 23, 25, and 26).
- o Comparison of work and rank (Question 24).
- o Self evaluation of job (Question 27).
- o Freedom to do job (Question 28).
- o Chance of consultation with supervisor (Question 29).
- o Recognition from immediate supervisor (Question 30).
- o Years after last promotion (Question 31).
- o Years before next promotion (Question 32).
- o Economic standard (Q34 x Q35).
- o Economic security (Q36 x Q37).
- o Free time (Q38 x Q39).
- o Work (Q40 x Q41).
- o Leadership/supervision (Q42 x Q43).
- o Equity (Q44 x Q45).
- o Personal growth (Q46 x Q47).

- o Personal standing (Q48 x Q49).
- o Health (Q50 x Q51).

The above questions representing each of the quality of life dimensions (from Question 34 to Question 51) are explained in the questionnaire (Appendix A). Even-numbered questions among these are importance weightings ( $W_j$ ) and odd-numbered questions are subjective satisfaction measures ( $S_j$ ). The importance weightings were multiplied by the subjective satisfaction measures for each quality of life factor and these products,  $W_j S_j$ , were used in the correlation analysis. Questions 18 and 19 ask house size and family size respectively, so Question 18 was divided by Question 19 to obtain the house space for each family member.

The SPSS subprogram "PEARSON CORR" was used. The result of this analysis is provided as Tables 3.8 and 3.9. The significance levels in these tables are for two tailed tests. For the career-intent-related variables, it was decided to select variables with correlations significant at the 0.2 level or less for input to the regression analysis. Variables selected as significantly correlated with either job satisfaction or career intent were marked by asterisk in Tables 3.10 and 3.11, respectively.

TABLE 3.10  
Pearson Correlation With Career Intent

Variables	Meaning	Correlation Coefficient	Significance
Q3	Years in military	.2928	* .001
Q4	Experience of computer work	.1545	* .032
Q5	Number of dependents	.2500	* .001
Q12	Amount of vacation	.0186	.797
Q13	Amount of overtime work	-.0461	.525
Q14	Perception of the military pay	-.2197	* .002
Q15	Perception of chance in getting new job	.2766	* .001
Q16	Chance of savings	.0678	.350
Q17	House ownership	.0472	.518
Q18	House size	-.1113	* .124
Q19	Family size	-.1310	* .070
Q18/Q19	House space for each family member	-.0001	.999
Q22	Hopp job satisfaction question	.3595	* .001
Q23	" " "	.2181	* .002
Q25	" " "	.1875	* .009
Q26	" " "	.0996	* .168
Q24	Comparison of work and rank	-.0493	.497
Q27	Self evaluation of job	-.0298	.681
Q28	Freedom to do job	.0949	* .189
Q29	Chance of consultation with supervisor	.2603	* .001
Q30	Recognition from supervisor	.1752	* .016
Q31	Years after last promotion	.1823	* .012
Q32	Years before next promotion	-.0114	.878
Q34xQ35	Economic standard	.2187	* .002
Q36xQ37	Economic security	.2813	* .001
Q38xQ39	Free time	-.0427	.556
Q40xQ41	Work	.1624	* .024
Q42xQ43	Leadership/supervision	.2369	* .001
Q44xQ45	Equity	.2154	* .003
Q46xQ47	Personal growth	.1073	* .137
Q48xQ49	Personal standing	.1529	* .034
Q50xQ51	Health	.1106	* .128

\* Variable significant at the .2 level.

TABLE 3.11  
Pearson Correlation With Job Satisfaction

Variables	Meaning	Correlation Coefficient	Significance
Q3	Years in military	.0249	.685
Q4	Experience of computer work	-.0438	.546
Q5	Number of dependents	.0041	.955
Q12	Amount of vacation	-.0363	.616
Q13	Amount of overtime work	-.0073	.920
Q14	Perception of the military pay	-.0157	.829
Q15	Perception of chance in getting new job	-.0162	.823
Q16	Chance of savings	-.0507	.485
Q17	House ownership	.0130	.858
Q18	House size	-.0125	.864
Q19	Family size	-.1038	.152
Q18/Q19	House space for each family member	.0198	.785
Q24	Comparison of work and rank	-.2401	* .001
Q27	Self evaluation of job	.1840	* .010
Q28	Freedom to do job	.2138	* .003
Q29	Chance of consultation with supervisor	.2552	* .001
Q30	Recognition from supervisor	.4338	* .001
Q31	Years after last promotion	-.0249	.734
Q32	Years before next promotion	.0239	.747
Q34xQ35	Economic standard	.1682	* .020
Q36xQ37	Economic security	.2447	* .001
Q38xQ39	Free time	.1789	* .013
Q40xQ41	Work	.4525	* .001
Q42xQ43	Leadership/supervision	.2629	* .001
Q44xQ45	Equity	.3187	* .001
Q46xQ47	Personal growth	.4109	* .001
Q48xQ49	Personal standing	.2060	* .004
Q50xQ51	Health	.1632	* .024

\* Variables significant at the .1 level.

### Factor Analysis

As a result of the Pearson Correlation Analysis, it was decided to include 23 variables for career intent and 14 variables for job satisfaction in the factor analysis. The SPSS subprogram "FACTOR" with pairwise deletion of missing data was used.

For career intent, the computer outputs of factor analysis of the career-intent-related variables are provided as Tables 3.12, 3.13, 3.14, and 3.15. The factors and their related eigenvalues are shown in Table 3.12. Six factors were retained based on retention of factors with eigenvalues greater than 1.0. To simplify interpretation of the factor matrix, varimax rotation was used. The variables with high loadings on each factor are enclosed by boxes in Table 3.13. The interpretation of each factor is as follows:

- o Factor 1 represents quality of life; this factor is composed of eight of the quality of life questions.
- o Factor 2 represents experience; the questions in this factor ask about experience in the military, in computer work, in the same rank, and in married life.
- o Factor 3 represents job satisfaction; these four questions are Hopp job satisfaction questions.

TABLE 3.12

Factors and Related Eigenvalues  
(from the career-intent-related variables)

Factors	Eigenvalue	Percent of Variance
1	5.11451	22.2
2	2.92171	12.7
3	1.74693	7.6
4	1.57173	6.8
5	1.35640	5.9
6	1.22310	5.3
7	.96460	4.2
8	.90068	3.9
9	.77794	3.4

TABLE 3.13

Varimax Rotated Factor Matrix  
(from the career-intent-related variables)

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Q3	.00153	.87578	.01210	.02650	.10280	.05880
Q4	-.03556	.82789	.00193	.03993	-.10636	-.00324
Q5	.01877	.75950	-.02740	-.13828	.13821	-.04591
Q14	-.04401	.16311	.00229	-.01571	-.03989	-.84720
Q15	-.02745	.29826	-.03547	.00468	.03809	.68900
Q18	-.04258	-.21160	.02039	.81229	-.01083	.07016
Q19	-.02647	.12616	-.11416	.84247	.00087	-.03971
Q22	.19492	.04127	.74580	.11721	.21443	.03946
Q23	.04390	.00468	.77408	-.07780	.17140	-.09097
Q25	.03533	-.16226	.75664	-.05277	.12537	.06616
Q26	.25573	.10026	.59208	-.09410	-.06280	-.02228
Q28	.26549	-.13498	.02159	-.06221	.63238	-.00572
Q29	.08042	.18705	.15058	.00710	.72907	.10179
Q30	.19404	.00062	.34140	.03862	.69943	.02367
Q31	-.00201	.75492	-.00357	-.00830	-.07957	.08314
Q34xQ35	.64961	.04158	.09581	.10029	-.13380	.35053
Q36xQ37	.74843	.12992	.14311	.10741	-.08022	.10880
Q40xQ41	.53161	.00947	.38209	.09872	.30908	-.13264
Q42xQ43	.53927	-.01854	.08796	.02655	.45578	-.08770
Q44xQ45	.66581	-.10377	.19611	-.07700	.22169	.00840
Q46xQ47	.60966	.00397	.27313	.03685	.31927	-.16002
Q48xQ49	.60912	.00970	.02411	-.17723	.34087	-.08157
Q50xQ51	.63046	-.01668	-.03200	-.14775	.15341	-.00751

TABLE 3.14  
Means and Standard Deviations

Variable	Mean	Standard Deviation
Q3	5.8238	5.1942
Q4	3.9637	3.0862
Q5	2.6891	1.8248
Q14	4.5759	.6011
Q15	2.1451	.9681
Q18	4.8229	2.7830
Q19	4.9792	2.0567
Q22	3.6425	1.4619
Q23	4.4404	1.0041
Q25	4.6891	1.4422
Q26	4.2539	1.2840
Q28	3.0725	1.1569
Q29	2.4767	1.0056
Q30	3.0053	1.0209
Q31	2.5873	2.1559
Q34xQ35	15.6667	7.8269
Q36xQ37	16.9427	8.5063
Q40xQ41	24.9844	10.5783
Q42xQ43	22.7617	11.1913
Q44xQ45	23.3938	10.3320
Q46xQ47	25.3005	11.0006
Q48xQ49	22.5751	9.2261
Q50xQ51	22.7120	9.9750



TABLE 3.15  
Factor Score Coefficients  
(from the career-intent-related variables)

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Q3	-.00537	.30220	-.00571	.03532	.04821	.00754
Q4	.00047	.29064	.03177	.04173	-.06888	-.03988
Q5	-.02275	.26201	-.03065	-.07152	.08051	-.05213
Q14	.01874	.09095	.00166	.03263	-.05109	-.60858
Q15	-.04240	.07609	-.00720	-.02372	.05966	.48018
Q18	-.01093	-.05901	.02114	.53094	.01629	.02073
Q19	.01015	.06189	-.04834	.56267	.03554	-.07451
Q22	-.04689	.02068	.32494	.08740	-.01432	.03291
Q23	-.10105	.01096	.35938	-.03844	-.02422	-.04482
Q25	-.09746	-.05271	.35932	-.03382	-.04207	.07076
Q26	.05157	.03932	.28216	-.05375	-.18975	-.01816
Q28	-.01931	-.05517	-.12112	-.03056	.35581	.01886
Q29	-.13617	.05639	-.04420	.01771	.43858	.09148
Q30	-.09977	-.00323	.04154	.04046	.36513	.03939
Q31	.00661	.26022	.02105	.00478	-.05425	.02653
Q34xQ35	.27449	-.00029	.00314	.05522	-.21951	.21585
Q36xQ37	.30756	.03960	.00506	.07557	-.22173	.03910
Q40xQ41	.12126	.00836	.08421	.08503	.03039	-.10145
Q42xQ43	.12576	-.00941	-.08949	.03485	.17195	-.06398
Q44xQ45	.20983	-.04289	-.02103	-.04222	-.02110	.00098
Q46xQ47	.16438	.00427	.01754	.04532	.03647	-.12179
Q48xQ49	.18288	-.00440	-.11261	-.10182	.08944	-.05875
Q50xQ51	.23383	-.01521	-.11285	-.08969	-.02495	-.01509

- o Factor 4 represents space in house; Question 18 asks house size and Question 19 asks family size.
- o Factor 5 represents autonomy and feedback; Question 28 asks autonomy and Questions 29 and 30 ask about the amount of feedback and the result of feedback, respectively.
- o Factor 6 represents job opportunities; Question 15 asks about the chance of getting a new similar job and Question 14 asks about military pay compared with the pay in private industry.

For the subsequent regression analysis, factor scores were calculated using factor score coefficients, means, and standard deviations from Tables 3.14 and 3.15 (see Appendix B).

For job satisfaction, 14 job-satisfaction-related variables were put in the factor analysis and three types of rotation method (VARIMAX, QUARTIMAX, and EQUIMAX) were tried. The best result among those outputs was by VARIMAX and is shown in Table 3.16. All the quality of life factors made one group. Questions 28, 29, and 30 appeared in one group. This shows similar results with the cases of Factor 1 (quality of life) and Factor 5 (autonomy and feedback) in career-intent-related variables. But three variables (Questions 42x43, 29, and 30) were highly loaded on two factors as indicated in

TABLE 3.16

Varimax Rotated Factor Matrix  
(from the job-satisfaction-related variables)

	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
Q24	.00551	-.03125	<span style="border: 1px solid black;">-.80981</span>
Q25	-.05631	<span style="border: 1px solid black;">.71071</span>	-.01769
Q28	.29327	.54393	.04297
Q29	.11073	.51613	→ .46894
Q30	.20142	<span style="border: 1px solid black;">.63484</span>	→ .51491
Q34xQ35	<span style="border: 1px solid black;">.67447</span>	-.26268	.30524
Q36xQ37	.73478	-.07987	.15541
Q38xQ39	.55993	.10839	-.20222
Q40xQ41	.57287	.38611	.13055
Q42xQ43	.51671	→ .51141	-.03875
Q44xQ45	.67487	.22041	.17879
Q46xQ47	.58162	.44652	.12920
Q48xQ49	.59625	.35344	-.00689
Q50xQ51	<span style="border: 1px solid black;">.59344</span>	.20335	-.08163

Table 3.16. So it was decided to use the related 14 variables selected in the correlation analysis to perform the job satisfaction regression analysis rather than factor scores.

#### Regression Analysis

Three types of regression analysis were performed. The first used career intent as the criterion with the related factors determined in the previous factor analysis as predictors. The second used career intent as the criterion with the related individual variables identified in the correlation analysis as predictors. The third was for the job satisfaction using predictor variables identified in the correlation analysis. Meaningful groups for job satisfaction and career intent determined in the contingency table analysis were examined in each regression analysis. In each regression model, variables with significance levels of 0.1 or less were included in the models.

Regression Model of Career Intent. In interpreting regression models of career intent, the factors which were identified as a result of factor analysis were used where possible to obtain a model based on a few basic dimensions. For example, the "Hoppock job satisfaction" and "quality of life" factors are fundamental concepts, measured as sums of several questions, which were identified in the research on which this thesis is based.

The model using factors as predictor variables is represented in Table 3.17. Factor 1 (quality of life), Factor 2 (experience), and Factor 3 (job satisfaction) have a positive effect on career intent in this model suggesting that high career intent is associated with high job satisfaction and quality of life. People with a large amount of experience tend to have high career intent. This "experience" factor was difficult to interpret. The model of career intent using the raw variables (represented by Table 3.18) helped to clarify this issue. The "experience" factor is composed of four variables (Questions 3, 4, 5, and 31) but in the model in Table 3.18 only two variables (Questions 3 and 5) among these four variables appeared to be significant. The indication is that experience in the military and the number of dependents has a positive influence on the career intent. In other words, people who have been in the military a long time and have many dependents to support tend to have high career intent. Factor 4 (space in house) and Factor 6 (job opportunity) have a negative influence on career intent. Factor 4 is difficult to interpret. Two variables define this factor: family size and house size. It can be inferred that the people who have large families may need large houses, and that a large number of these people have large houses from

TABLE 3.17

## Regression Model of Career Intent With Factors

$$R^2 = .25724$$

Inclusion # in the Model	Factor	Included Variables	Coefficient	Beta Weight	Significance	R <sup>2</sup> Change (%)
1	(1) Quality of Life	Q34xQ35, Q36xQ37 Q40xQ41, Q42xQ43 Q44xQ45, Q46xQ47 Q48xQ49, Q50xQ51	.26	.19	.006	.08709 (33.85)
2	(2) Experience	Q3, Q4, Q5, Q31	.42	.25	.000	.06567 (25.53)
3	(6) Job opportunity	Q14, Q15	.36	.23	.000	.05149 (20.02)
4	(3) Job Satisfaction	Q22, Q23, Q25, Q26	.32	.21	.002	.04127 (16.04)
5	(4) Space in House	Q18, Q19	-.18	-.11	.088	.01171 ( 4.55)
	Constant		2.78		0	

TABLE 3.18  
Regression Model of Career Intent With Raw Variables

$R^2 = .30214$

Inclusion # in the Model	Variable	Meaning	Coefficient	Beta Weight	Significance	R <sup>2</sup> Change (%)
1	Job Satisfaction		.09	.24	.001	.09403 (31.12)
2	Q15	Perception of Chance to Get Civilian Job	.22	.14	.055	.07370 (24.39)
3	Q3	Years in Military	.04	.15	.068	.04271 (14.14)
4	Q14	Perception of Military Pay	-.50	-.20	.005	.03327 (11.01)
5	Q36xQ37	Economic Security	.03	.19	.006	.02894 ( 9.58)
6	Q19	Family Size	-.10	-.14	.036	.01838 ( 6.08)
7	Q5	Number of Dependents	.11	.13	.101	.01111 ( 3.68)
	CONSTANT		2.48		.016	

the fact that these two variables were categorized into the same factor in the factor analysis.

Factor 6 (job opportunity) seems to have a positive effect on career intent in the model as shown in Table 3.17, but Factor 6 was computed as follows:

$$\text{Factor 6} = -.60858*(Q14-4.5769)/.6011 \\ +.48018*(Q15-2.1451)/.9681 .$$

This formula suggests that large score of Factor 6 can be caused by low valued answers to Question 14 and a high valued answer to Question 15. The low valued answer to Question 14 indicates that military pay is higher than civilian and the high valued answer to Question 15 indicates that it would be difficult to get a similar job in private industry. Low job opportunity can cause the low valued answer to Question 14 and the high valued answer to Question 15. So it is assumed that the large score of Factor 6 is caused by low job opportunity. This relationship suggests that people who have good job opportunity (a low score on Factor 6) will feel that they could get a new similar civilian job easily and will think that military pay is lower than civilian pay considering their contribution to the military. So it seems that high job opportunity has a negative effect on career intent.



Dummy variables were used to compare the groups defined earlier on the career intent variable, but none of the dummy variables were significant.

Regression Model of Job Satisfaction. The model presented in Table 3.19 shows that people report high job satisfaction in the following cases.

- o High valence in "work" (when the people do work which gives pride, receive recognition for their work and accomplishments).
- o When people receive recognition for their work from their immediate supervisor.
- o High valence in "personal growth" (when people feel that they can develop their capacities, make full use of their abilities and have a chance to further their potential in doing their work).

This model also shows that when individuals feel their grade is low for their work, their job satisfaction becomes low. The people who reported that their favorite subject was science or art have higher job satisfaction than other people. Among the variables in the job satisfaction model, "work" alone contributed more than half of the explained variance (57.97%).

The Effect of Job Satisfaction on Career Intent.  
Tables 3.17 and 3.18 show that job satisfaction was

TABLE 3.19

Regression Model of Job Satisfaction

$$R^2 = .36079$$

Inclusion # in the Model	Variable	Meaning	Coefficient	Beta Weight	Significance	R <sup>2</sup> Change (%)
1	Q40xQ41	Work	.09	.23	.002	.20916 (57.97)
2	Q30	Recognition from Supervisor	1.07	.27	.000	.09373 (25.98)
3	Q46xQ47	Personal Growth	.06	.16	.022	.02496 ( 6.92)
4	DuM3	Favorite Subject "Science"	1.42	.13	.037	.01091 ( 3.02)
5	Q24	Grade for Work	-.70	-.13	.038	.01079 ( 2.99)
6	DuM4	Favorite Subject "Art"	1.10	.11	.079	.01125 ( 3.12)
	Constant		12.04		.000	

included in each model with significance levels of 0.002 and 0.00, respectively. In terms of Hypotheses 1 stated in Chapter I, it is concluded that job satisfaction significantly affects career intent of the military data processing personnel.

Job Environmental Factor's Effect on Career Intent.

In the regression model of career intent with raw variables which is shown in Table 3.18, job satisfaction turned out to be the most significant variable. However, to compare the effect on career intent of job satisfaction and the job environmental variables, a method for examining the combined effect of the job environmental variables was needed. So, the regression model of career intent with factors which is shown in Table 3.17 was used and Factor 6 (job opportunity) and Factor 3 (job satisfaction) were chosen for this purpose. The reason for choosing Factor 6 was as follows:

- o Factor 6 consists of Questions 14 and 15 as can be seen in Table 3.17. Questions 14 and 15 are included in the regression model of career intent in Table 3.18, so Factor 6 cannot be considered to be magnified unnecessarily in its effect on career intent.
- o Factor 6 can be considered to represent the combined effect of the two variables, Questions 14 and 15.

- o Questions 14 and 15 were not included in the regression model of job satisfaction which can be seen in Table 3.19. So Factor 6 is not one of the job-satisfaction-related variables as long as significance level 0.1 is applied.

Table 3.17 shows that Factor 6 and Factor 3 have nearly equal beta weights. This indicates that job satisfaction (Factor 3) and job environmental factors are almost equally important for career intent. So for Hypotheses 2 stated in Chapter I, we'll conclude that job environmental factors and job satisfaction both affect career intent.

Job-Satisfaction-Related Variables. A model of each variable's effect on job satisfaction or career intent which can be supported by the regression results is provided as Figure 3.1. Six variables affect career intent but are not significant predictors of job satisfaction. Three variables affect job satisfaction but do not affect career intent. So for Hypotheses 3 stated in Chapter I, we conclude that some factors significantly affect job satisfaction but do not affect career intent.

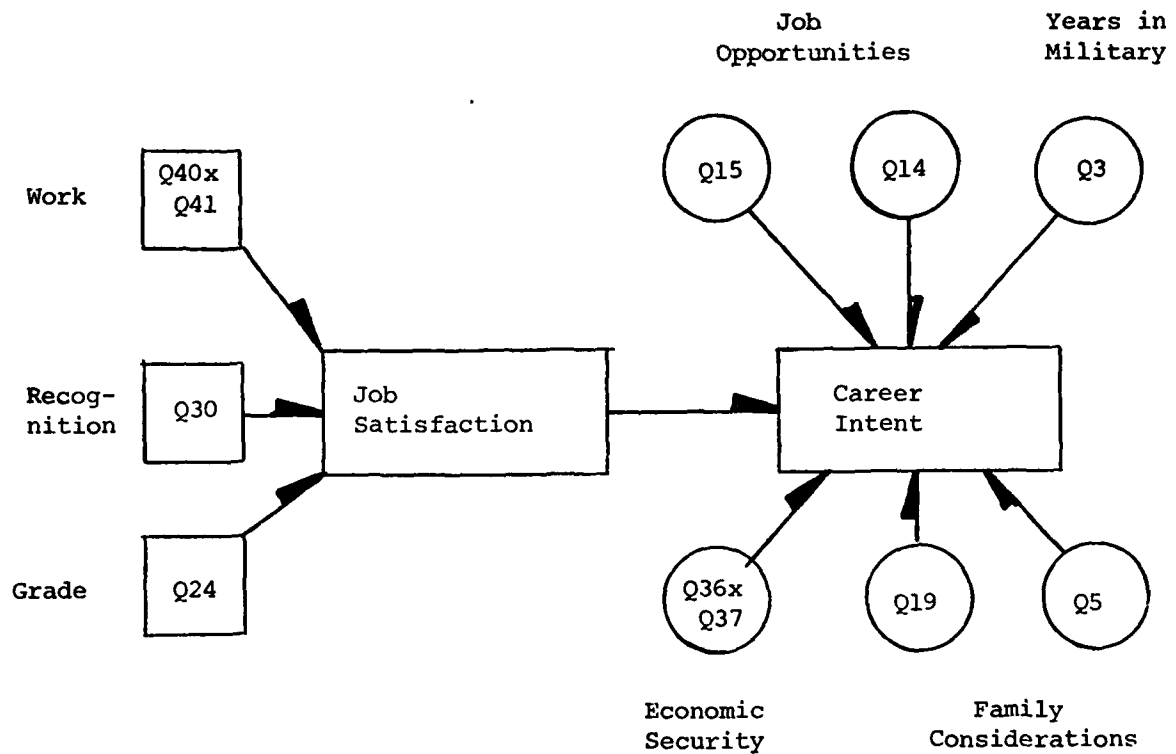


Figure 3.1. Related Variables to Job Satisfaction and Career Intent.

#### IV. Results and Discussion

##### Job Satisfaction

Related Variables. Four variables (representing Questions 40x41, 30, 46x47, and 24) are related with job satisfaction significantly as mentioned in the previous chapter. Two variables, Q40xQ41 and Q46xQ47, represent satisfaction with the "work" and "personal growth" quality of life variables, respectively. Question 30 represents recognition from the immediate supervisor. The relation between Question 24 (appropriateness of grade level for the work) and job satisfaction indicates that too low a grade for the work has a negative effect on job satisfaction. Too low a grade for the work may indicate a lack of autonomy preventing the work from being of one's own design and under one's own control.

Among the four job-satisfaction-related variables which are shown in the job satisfaction model (Table 3.19), work autonomy and recognition from supervisor can be classified as variables describing the work environment but the remaining two variables ("work" and "personal growth") contributed about 65 percent of the explained

variance. It indicates a strong relationship between job satisfaction and the work itself.

In terms of Maslow's hierarchy, these job-satisfaction-related variables represent higher order human needs.

So in summary,

- o The variables most highly related to job satisfaction for this sample are the work quality of life variable, recognition from supervisor, personal growth, and work autonomy.
- o Job satisfaction for this sample is more closely related to the work itself, than to variables describing the work environment.
- o The job-satisfaction-related variables of the sample represent higher order human needs.

The Effect of Job Satisfaction. Some authors believe that job satisfaction is highly correlated with job performance and absenteeism and turnover. One reference was made as follows:

"Employee morale (job satisfaction) reduces turnover - cuts down absenteeism and tardiness; lifts production. It is not hard to see how the assumption that high job satisfaction leads to high performance came to be popularly accepted. Not only did it fit into the value system of the human relations

movement but there also appeared to be some research data to support this point." (Ref 15:207)

But other authors deny job satisfaction's effect on job performance. One of these authors' views is as follows:

"...early interest in job satisfaction was the widely held belief that people who are satisfied should perform better in organizations. The failure of researchers to find such a relationship between satisfaction and performance has, in general, decreased this belief.... Satisfaction has turned out to be a reasonably good predictor of absenteeism and turnover; the more satisfied an employee, the less likely he is to be absent or to resign from the organization." (Ref 14:53).

A common point in these references is that job satisfaction can be a good predictor of absenteeism and turnover and it was shown in the previous chapter that high job satisfaction for this sample positively affects career intent. Further, it is not hard to conclude that absenteeism leads to low job performance. So it seems reasonable to suggest that high job satisfaction increases career intent and helps prevent low job performance.

Increasing Job Satisfaction. A common view is that job satisfaction is determined by the difference between all the things a person feels he should receive from his job and all the things he actually does receive (Ref 16:43). If the rewards a person feels he should receive are greater than the rewards he actually receives,



dissatisfaction results (Ref 16:41). The outcomes the individual obtains permit him to determine the degree to which those expectancies about behavior - outcome contingencies were realistic (Ref 14:126). So expectancies can be reduced by some degree, but it is hard to reduce expectancies of military data processing personnel. The rewards military data processing personnel feel they should receive may be strongly influenced by what they perceive others like themselves are receiving (Ref 14:54). Some employees may recognize that some of their expectancies cannot be obtained in the military system but feel that data processing personnel outside the military systems receive greater rewards. So if it is desirable to increase job satisfaction, rewards for military data processing personnel will probably have to be improved.

The job satisfaction of the sample has been shown to be closely related to satisfaction with the work itself as measured by the work quality of life factor.

Some considerations in improving the work itself are the following:

- o Large differences are clearly evident and must be considered when viewing the individual in the organization (Ref 14:48). The same work cannot give every individual the same amount of job satisfaction.

- o The goodness of the fit between the specific work and the specific individual should be considered. There may be another type of job or work situation in which the apparently "bad" worker might prosper and perform quite effectively (Ref 14:103).
- o Many potential intrinsic rewards are directly related to job design. Feelings of achievement and accomplishment are experienced more frequently when the individual genuinely likes the job (Ref 17:335).

Since more than half of the sample want to work in other functional areas, some interchange of personnel might be considered. Based on the fact that respondents seem to want more challenging work and more work autonomy, job enrichment techniques might also be useful.

Dissatisfaction with the degree of autonomy results when an individual cannot make full use of his skills and abilities (Ref 14:303). Full use of the individual's ability is beneficial for both the organization's productivity and the individual's growth and achievement. The core of work autonomy is the right to make decisions about how the work is accomplished. A person who holds too low a grade for his work may not be able to reflect

his opinions in planning his work and has to follow his superiors' decisions in the military system.

Additionally, in the regression model of job satisfaction, individuals whose favorite subjects were science or art had higher job satisfaction than other groups. People's capabilities are a function of both innate aptitude and learning:

$$\text{Response Capability} = (\text{Aptitude} \times \text{Learning})$$

(Ref 14:61).

Aptitude is not subject to improvement by training. So, to a certain degree, a person with the proper aptitudes is more suited to computer work and this affects job satisfaction. Choice of favorite subject may be a useful factor to consider in selecting personnel.

In summary, work redesign or enrichment and work autonomy were mentioned as useful ways of increasing job satisfaction. Among these, work redesign or enrichment (which may include increased autonomy) seems to be a more useful approach because the job satisfaction of the R.O.K. military data processing personnel is closely related to work.

## Career Intent

### Related Variables.

**Job Satisfaction:** Job satisfaction has a significant positive effect on career intent and is closely related to the work quality of life variable as mentioned earlier. Among the people who chose answers A through F (the people who listed a factor which would influence them to make the military a career) in Table 3.3, 25.42 percent selected "my job" as the one most favorable factor in making the military their career. In addition, in Table 3.4, listing the unfavorable factors which are most influential in causing respondents not to make the military a career, only 5.63 percent of the people who selected an unfavorable factor selected the factor called "my job." This comparison suggests that military data processing personnel tend to like computer work.

**Quality of Life:** Quality of life appeared to have a positive effect on career intent and it seems natural in that if a person is not satisfied with his life in the military, he would not have high career intent. To identify the important aspects of the "quality of life" of the sample population from the standpoint of improving career intent, Table 3.15

can be examined. Economic security is the only variable in this model which represents quality of life, so it appears that economic security is the quality of life variable most important in influencing the career intent of the sample.

Years in Military: Years in the military appeared to have a positive effect on career intent in the regression analysis. It indicates that the longer one has been in the military, the higher career intent he has. This seems to be a widely known phenomena. Turnover has been found to be highly correlated with expressed career intent, so some properties of turnover found in the literature are presented in the following paragraphs:

"One study of rank-and-file workers, for example, found that the quit rate was 49.1 percent higher for those with less than one year's service than for those who had been employed for longer than a year." (Ref 14:178)

"Studies of college graduates indicate that five years after graduation at least 50 percent of them have changed organizations and some have decided to take up a new occupation. Studies of non-management employees show that in many jobs turnover runs more than 50 percent in the first year." (Ref 14:200)

These examples show that the turnover rate is high in the early years of employment. One of the reasons for this early year turnover is that the expectations held by some newly hired employees are often

unrealistic (Ref 14:175). On the other hand, if an employee has knowledge of the organization and consequently has realistic expectations, he is likely to have higher career intent.

"Several studies have shown that, when compared with job applicants who are given an unrealistic job preview, those who receive a realistic one show higher job satisfaction scores and lower turnover rates after they are on the job."  
(Ref 14:144)

Number of Dependents: It turned out that the respondent who has many dependents tends to have higher career intent. It seems that one who has many dependents may like a more secure life and consequently does not want to change jobs.

Family Size: Family size has a negative effect on career intent. This is a difficult factor to explain because there are good chances that the one who has many dependents also has a large family size even though many dependents and large family size have opposite effects on career intent. It is possible that dependents live apart from the respondent, but the family size question was worded as follows: "How large is your family who live in your house?" So, it is concluded that the number of dependents and family size are different factors.

Job Opportunity: It has been shown that high job opportunity has a negative effect on career intent. Two variables contribute to this factor. They are perceived feelings of the chance of getting a similar new job and a comparison of military and civilian pay. Previous frequency analysis results related to these two variables showed that:

- o 95 percent of the sample think that the military pay is less than the pay in private industry employment.
- o 64 percent of the sample think that it would not be difficult to get a similar new job in private industry.
- o "Pay and allowance" was pointed out with the highest frequency as an unfavorable factor which influenced the survey respondent not to make the military a career.
- o Among the quality of life factors, economic standard and economic security are significantly low compared with other factors.

These results suggest that a large part of the sample is not satisfied with military pay and feel they can be employed easily in private industry. These perceptions can be affected by the outside data processing personnel market condition, which

cannot be controlled by the military. Perhaps more important is that these perceptions can be affected by the individual's perceived job opportunities. The individual who thinks that military pay is low and that he could get a similar new job easily is likely to be a good performer and likely to leave the organization.

"The people most likely to leave the organization will be the good performer because their dissatisfaction is higher and their job opportunities greater....  
...turnover in the organization is likely to be centered among the better performers rather than the poor ones."  
(Ref 14:349).

"The outside job market tends to be better for the good performer."  
(Ref 14:346)

Because job opportunities are easier for him to find, the good performer may have lower career intent than the poor performer. So the respondent who expresses lower career intent is most likely the one who is really needed for the military E.D.P. systems. Retention efforts should be concentrated on good performers rather than poor ones as suggested by the following:

"Stated most simply the best performers must be the most satisfied and the worst performers the least satisfied..  
....it is far better to risk losing poor performers through turnover than to risk losing good performers."  
(Ref 14:348)



The Effect of Career Intent. The career intent of the sample turned out to be low. Then why do the respondents not leave the military system? Several answers are possible.

- o They have no alternatives. Current labor market is unfavorable for their skills, positions, pay, etc.
- o Their view about the military E.D.P. system was instrumental. A military job was just a stepping stone and they have not yet obtained what they want from the military E.D.P. system like training, certificate, etc.
- o They are locked in. They have not finished their contracted period or they have only a few years to go for accumulated benefits like retirement.

From the above, it is not hard to assume that many will leave the military system whenever they get into one of the following situations.

- o They have better alternatives.
- o They have obtained what they want from the military system.
- o They are free from the "locked-in" situation.

Katz states that one of the three types of behavioral requirements essential for the functioning of the organization is high career intent (Ref 18:7).

Increasing Career Intent. Analysis results presented in Chapter III showed that six variables are closely related to career intent. Among these six variables, job satisfaction has already been mentioned. The number of dependents and family size cannot be controlled by the organization and their contribution to the regression model of career intent was small compared with other variables. The remaining variables; pay, economic security, and familiarity with the military system were considered in more detail as a result of earlier analysis of related variables.

It is not so hard to understand why improving pay is so important to increasing career intent. Pay can satisfy many needs of an individual.

"Pay appears to be able to satisfy not only existence needs but security and esteem needs as well." (Ref 14:46)

"Pay is important to some people because it buys food, to others it is important because it symbolizes success and positive feedback." (Ref 14:343)

In addition to this general necessity of adequate pay, analysis of the sample shows the importance of pay increases for data processing personnel in the following ways:

- o Economic standard and economic security turned out to be significantly low compared with other quality of life factors.

- o Almost all of the sample think that the military pay is low compared with the pay in private industry.
- o Military pay was pointed out with most frequency as an unfavorable factor influencing the respondent not to make the military a career.
- o Pay turned out to be closely related to career intent.

So pay is considered to be an important motivator. But it is hard to increase pay. The R.O.K. military has limited ability to keep military pay in line with the data processing personnel marketplace and it is difficult to increase the pay of only a certain group. So the following alternatives to increasing pay can be considered.

Fringe benefits can be used properly. There are two ways of using fringe benefits. One way is to give everyone similar fringe benefits, and the other is to distribute fringe benefits according to performance. Giving everyone the same fringe benefits does not seem to be effective. The regression analysis done in this research did not show differences in career intent among the military groups even though some of them have specific fringe benefits for their data processing personnel (for example, the Army and Navy have provided a bonus for the data processing personnel on a regular basis) and some of them

do not have any fringe benefits. By giving everyone similar benefits, poor performers are satisfied rather than good performers. Good performers may think they deserve better treatment compared to poor performers. This may not improve the low career intent of the good performers (Ref 14:346). A fringe benefit can be used not only to increase the standard of living but also to reinforce good performance. A good performer is the one who is really needed in the military. If performance is taken into account in distributing fringe benefits, poor performers may be dissatisfied but poor performers are not the ones the military wants.

In addition, economic security and familiarity with the military system must be considered. Economic security can be improved with guaranteed employment, retirement benefits, insurance, etc. A good economic security system will help to compensate for the current low pay. In the case of familiarity with the military, earlier in this chapter it was shown that the individual who is familiar with the organization tends to have higher career intent. So, two ways to improve career intent can be considered. One is to make applicants familiar with the military system before selection by explaining the weak points as well as the good points of the military system. The other is to choose individuals who are already familiar with the

military system for data processing training by choosing personnel who have prior military service.

So, in summary, pay and economic security improvements must be emphasized since these two factors contribute strongly to predicting career intent and improvements in these areas could help current personnel. Improving fringe benefits and applying these benefits selectively may be helpful if there is a limited ability to increase pay.

#### Relations Between Job Satisfaction and Career Intent.

It was shown that some factors significantly affect job satisfaction but do not affect career intent, and some factors significantly affect career intent but are not related to job satisfaction in this research. So it can be concluded that job satisfaction and career intent are not identical even though job satisfaction has a significant effect on career intent. Robert Hoppock supports this view with his research data as follows:

"That job satisfaction and vocational interest are not identical is apparent from the fact that a person may be deeply interested in his work, but intensely dissatisfied with his job for any one of a number of reasons such as salary, supervision, and environment. If evidence be needed there are the 85 percent of dissatisfied teachers who answered "yes" to the question "50. Is your work interesting?" (Ref 13:49,50)

So, to increase career intent, job environmental factors (which are not part of job satisfaction) and job satisfaction should be considered separately. Since job satisfaction is relatively high for the sampled group, it appears that emphasis on the job environmental variables will be most effective in improving career intent.

## V. Conclusions and Recommendations

Because of the rapid increase in the use of computers in Korea, the demand for computer workers has exceeded the supply, with the result that turnover rate of defense computer workers is uncomfortably high. The retention of qualified military computer workers is especially difficult because the military cannot match the rewards or working conditions of the business world. So, this study was conducted to seek better ways of increasing the career intent of R.O.K. military data processing personnel. The effort focused on the nature of military computer work and the work environment.

The results of this research can be summarized as follows:

- o The job satisfaction of the R.O.K. military data processing personnel is high while the career intent of the same population is low. Career intent appears to be affected by both the work environment and job satisfaction. So, management emphasis should be placed on the improvement of the work environment to increase career intent.

- o The job satisfaction of R.O.K. military data processing personnel is closely related with work, so work redesign or enrichment may be the most useful way to maintain and increase job satisfaction. Job satisfaction was highest among people whose favorite subjects were science or art, suggesting the use of this preference in selecting people for computer jobs.
- o The career intent of R.O.K. military data processing personnel is closely related to job satisfaction, economic security, years in military, number of dependents, family size, and job opportunity. Among these six factors, two factors (number of dependents and family size) are considered to be hard to control and job satisfaction is high. So economic security and job opportunity should be emphasized to increase career intent, but under the constraint of a limited ability to increase pay, it might be useful to provide fringe benefits based on individual performance. Perhaps the final factor, years in military, can be partially controlled. Since individuals with more years service tend to have higher career intent, selection of personnel with military experience to be trained for work in computer-related jobs is suggested.



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AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCH00--ETC F/G 5/9  
RELATIONSHIP BETWEEN JOB SATISFACTION AND CAREER INTENT OF D.P.--ETC(U)  
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AFIT/6SM/SM/80M-15

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APPENDIX A  
The Questionnaire

1. What is your present active duty grade?

- |                    |          |                 |
|--------------------|----------|-----------------|
| A. Colonel         | I.       | Q. GS 3A        |
| B. Lt/Colonel      | J.       | R. GS 3B        |
| C. Major           | K.       | S. GS 4A        |
| D. Captain         | L.       | T. GS 4B        |
| E. 1st Lt.         | M.       | U. GS 5A        |
| F. 2nd Lt.         | N.       | V. GS 5B        |
| G. Warrant Officer | O. GS 2A | W. GS Temporary |
| H.                 | P. GS 2B |                 |

2. In what military branch do you work?

- A. M.N.D.    B. Army    C. Navy    D. Air Force

3. How many years have you served in your military branch or M.N.D.?

- |                              |                              |
|------------------------------|------------------------------|
| A. Less than 1 year          | L. 11 years but less than 12 |
| B. 1 year but less than 2    | M. 12 years but less than 13 |
| C. 2 years but less than 3   | N. 13 years but less than 14 |
| D. 3 years but less than 4   | O. 14 years but less than 15 |
| E. 4 years but less than 5   | P. 15 years but less than 16 |
| F. 5 years but less than 6   | Q. 16 years but less than 17 |
| G. 6 years but less than 7   | R. 17 years but less than 18 |
| H. 7 years but less than 8   | S. 18 years but less than 19 |
| I. 8 years but less than 9   | T. 19 years but less than 20 |
| J. 9 years but less than 10  | U. 20 years or more          |
| K. 10 years but less than 11 |                              |

4. How many years have you worked as a data processing personnel in your military branch or M.N.D.?

- |                              |                              |
|------------------------------|------------------------------|
| A. Less than 1 year          | L. 11 years but less than 12 |
| B. 1 year but less than 2    | M. 12 years but less than 13 |
| C. 2 years but less than 3   | N. 13 years but less than 14 |
| D. 3 years but less than 4   | O. 14 years but less than 15 |
| E. 4 years but less than 5   | P. 15 years but less than 16 |
| F. 5 years but less than 6   | Q. 16 years but less than 17 |
| G. 6 years but less than 7   | R. 17 years but less than 18 |
| H. 7 years but less than 8   | S. 18 years but less than 19 |
| I. 8 years but less than 9   | T. 19 years but less than 20 |
| J. 9 years but less than 10  | U. 20 years or more          |
| K. 10 years but less than 11 |                              |

5. How many dependents do you have? Do not include yourself. Even if you are not married, if you have to support some, include them.

- |         |          |                  |
|---------|----------|------------------|
| A. None | D. Three | G. Six           |
| B. One  | E. Four  | H. Seven         |
| C. Two  | F. Five  | I. Eight or more |

6. What is your sex?

- |         |           |
|---------|-----------|
| A. Male | B. Female |
|---------|-----------|

7. What is your highest level of education now?

- A. Some high school (did not graduate)
- B. High school graduate
- C. Some college, but less than one year
- D. One year college, but less than two
- E. Two years college, but less than three years (including two-year associate degree)

- F. Three years or more college, no degree
  - G. College degree
  - H. Graduate work beyond bachelor degree  
(no master's degree)
  - I. Master's degree
  - J. Post-graduate work beyond master's degree
  - K. Doctorate degree
8. What is your marital status?
- A. Married
  - B. Never been married
  - C. Have been married but now a bachelor
9. What is your present assignment?
- A. Administrating people
  - B. Key puncher
  - C. Computer programmer
  - D. Operator (including data maintenance people)
  - E. Systems designer
10. If you would like to continue computer work, which one would you like to do?
- A. Administrating people
  - B. Key puncher
  - C. Computer programmer
  - D. Operator (including data maintenance people)
  - E. Systems designer

11. Which one of the following best describes your attitude toward making your current military branch or M.N.D. a career?
- A. Definitely intend to make the (Army, Navy, Air Force, M.N.D.) a career
  - B. Most likely will make the (Army, Navy, Air Force, M.N.D.) a career
  - C. Undecided
  - D. Most likely will not make the (Army, Navy, Air Force, M.N.D.) a career
  - E. Definitely do not intend to make the (Army, Navy, Air Force, M.N.D.) a career
12. How many days did you have as a vacation during the last one year?
- A. None
  - B. One week
  - C. Two weeks
  - D. Three weeks
  - E. Four weeks or more
13. How many days did you do the overwork during the last one year?
- |                  |                    |
|------------------|--------------------|
| A. None          | F. 21 to 25 days   |
| B. 1 to 5 days   | G. 26 to 30 days   |
| C. 6 to 10 days  | H. 31 to 35 days   |
| D. 11 to 15 days | I. 36 days or more |
| E. 16 to 20 days |                    |
14. How do you think your military pay (including all allowances and fringe benefits) compares with pay in private industry employment for similar work?
- A. Military pay is far higher than civilian
  - B. Military pay is somewhat higher than civilian



- C. Both about equal
  - D. Military pay is somewhat less than civilian
  - E. Military pay is far less than civilian
15. If I left the (Army, Navy, Air Force, M.N.D.) tomorrow, I think it would be very difficult to get a job in private industry with pay, benefits, duties, and responsibilities comparable with those of my present job.
- A. Strongly disagree
  - B. Disagree
  - C. Undecided
  - D. Agree
  - E. Strongly agree
16. How often do you have money left over for savings, investment, entertainment, etc., after paying your monthly bills and required expenses.
- A. Never
  - B. Seldom
  - C. Sometimes
  - D. Often
  - E. Always
17. Where do you live?
- A. Lodging house
  - B. Rented house with monthly payment
  - C. Rented house with down-payment only
  - D. Own house

18. How large is your house only for your family?

- A. Less than 5 pyoung
- B. 5 pyoung or more but less than 10 pyoung
- C. 10 pyoung or more but less than 15 pyoung
- D. 15 pyoung or more but less than 20 pyoung
- E. 20 pyoung or more but less than 25 pyoung
- F. 25 pyoung or more but less than 30 pyoung
- G. 30 pyoung or more but less than 35 pyoung
- H. 35 pyoung or more but less than 40 pyoung
- I. 40 pyoung or more but less than 45 pyoung
- J. 45 pyoung or more

1 pyoung = 4 yards<sup>2</sup>

19. How large is your family who live in your house?

- |      |               |
|------|---------------|
| A. 0 | G. 6          |
| B. 1 | H. 7          |
| C. 2 | I. 8          |
| D. 3 | J. 9          |
| E. 4 | K. 10         |
| F. 5 | L. 11 or more |

20. Select the one factor which today would influence you the most to make the (Army, Navy, Air Force, M.N.D.) a career.

- A. Opportunity for training and education
- B. My job (challenging, provides sense of accomplishment, etc.)
- C. Pay and allowance
- D. Promotion system and opportunity

- E. The retirement system
  - F. Opportunity to serve my country
  - G. I do not intend to make the (Army, Navy, Air Force, M.N.D.) a career
21. Select the one factor which today would influence you the most not to make the (Army, Navy, Air Force, M.N.D.) a career.
- A. My job (little challenge, little sense of accomplishment, etc.)
  - B. Pay and allowances
  - C. Promotion selection system
  - D. Promotion opportunity
  - E. Little "say" in future assignment
  - F. The people
  - G. The policies and procedures
  - H. Nothing unfavorable
22. Which one of the following shows how much of the time you feel satisfied with your job?
- A. All the time
  - B. Most of the time
  - C. A good deal of the time
  - D. About half of the time
  - E. Occasionally
  - F. Seldom
  - G. Never
23. Choose the one of the following statements which best tells how well you like your job.
- A. I hate it
  - B. I dislike it

- C. I don't like it
  - D. I am indifferent to it
  - E. I like it
  - F. I am enthusiastic about it
  - G. I love it
24. Do you feel that the work you are now doing is appropriate to the grade you hold?
- A. My grade is much too high for the work I am doing
  - B. My grade is somewhat too high for the work I am doing
  - C. My grade is about right for the work I am doing
  - D. My grade is somewhat too low for the work I am doing
  - E. My grade is much too low for the work I am doing
25. Which one of the following best tells you how you feel about changing your job?
- A. I would quit this job at once if I could
  - B. I would take almost any other job in which I could earn as much as I am earning now
  - C. I would like to change both my job and my occupation
  - D. I would like to exchange my present job for another job
  - E. I am not eager to change my job, but I would do so if I could get a better job
  - F. I cannot think of any jobs for which I would exchange
  - G. I would not exchange my job for any other

26. Which one of the following shows how you think you compare with other people?
- A. No one likes his job better than I like mine
  - B. I like my job much better than most people like theirs
  - C. I like my job better than most people like theirs
  - D. I like my job about as well as most people like theirs
  - E. I dislike my job more than most people dislike theirs
  - F. I dislike my job much more than most people dislike theirs
  - G. No one dislikes his job more than I dislike mine
27. How do you evaluate your present job?
- A. Not at all challenging
  - B. Not very challenging
  - C. Somewhat challenging
  - D. Challenging
  - E. Very challenging
28. Are you given the freedom you need to do your job well?
- A. Never
  - B. Seldom
  - C. Sometimes
  - D. Often
  - E. Always

29. How often do you and your supervisor get together to discuss your personal problems?
- A. Never
  - B. Seldom
  - C. Sometimes
  - D. Frequently
  - E. Very frequently
30. Does your immediate supervisor give you recognition for a job well done?
- A. Never
  - B. Seldom
  - C. Sometimes
  - D. Frequently
  - E. Always
31. How long have you been in your current duty grade since you were promoted?
- A. Less than one year
  - B. 1 year or more but less than 2 years
  - C. 2 years or more but less than 3 years
  - D. 3 years or more but less than 4 years
  - E. 4 years or more but less than 5 years
  - F. 5 years or more but less than 6 years
  - G. 6 years or more but less than 7 years
  - H. 7 years or more but less than 8 years
  - I. 8 years or more

32. How much longer do you have to wait to be promoted?

- |            |                    |
|------------|--------------------|
| A. 0 year  | F. 5 years         |
| B. 1 year  | G. 6 years         |
| C. 2 years | H. 7 years         |
| D. 3 years | I. 8 years or more |
| E. 4 years |                    |

33. Which of the following do you like best?

- A. Language
- B. Mathematics
- C. Science
- D. Art
- E. Social science

ECONOMIC STANDARD: Satisfaction of basic human needs

such as food, shelter, clothing; the ability to maintain an acceptable standard of living.

34. What degree of importance do you attach to the above? (Select one of the seven points on the importance scale.)

- |            |        |          |            |        |        |            |
|------------|--------|----------|------------|--------|--------|------------|
| A. .       | B. . . | C. . . . | D. . . .   | E. . . | F. . . | G.         |
| Moderate   |        |          | High       |        |        | Very High  |
| Importance |        |          | Importance |        |        | Importance |

35. To what degree are you satisfied with the ECONOMIC STANDARD aspects of your life? (Select one of the seven points on the satisfaction scale.)

- |              |        |          |          |        |        |           |
|--------------|--------|----------|----------|--------|--------|-----------|
| A. .         | B. . . | C. . . . | D. . . . | E. . . | F. . . | G.        |
| Highly       |        |          | Neutral  |        |        | Highly    |
| Dissatisfied |        |          |          |        |        | Satisfied |

ECONOMIC SECURITY: Guaranteed employment; retirement

benefits; insurance; protection for self and family.

36. What degree of importance do you attach to the above?

A. . . B. . . C . . . D . . . E. . . F. . . G		
Moderate	High	Very High
Importance	Importance	Importance

37. To what degree are you satisfied with the ECONOMIC SECURITY aspects of your life?

A. . . B. . . C . . . D . . . E. . . F. . . G		
Highly	Neutral	Highly
Dissatisfied		Satisfied

FREE TIME: Amount, use, and scheduling of free time alone, or in voluntary associations with others; variety of activities engaged in.

38. What degree of importance do you attach to the above?

A. . . B. . . C . . . D . . . E. . . F. . . G		
Moderate	High	Very High
Importance	Importance	Importance

39. To what degree are you satisfied with the FREE TIME aspects of your life?

A. . . B. . . C . . . D . . . E. . . F. . . G		
Highly	Neutral	Highly
Dissatisfied		Satisfied



WORK: Doing work that is personally meaningful and important; pride in my work; job satisfaction; recognition for my efforts and my accomplishments on the job.

40. What degree of importance do you attach to the above?

A . . . B . . . C . . . D . . . E . . . F . . . G		
Moderate	High	Very High
Importance	Importance	Importance

41. To what degree are you satisfied with the WORK aspects of your life?

A . . . B . . . C . . . D . . . E . . . F . . . G		
Highly		Highly
Dissatisfied	Neutral	Satisfied

LEADERSHIP/SUPERVISION: My supervisor has my interests and that of the Air Force at heart; keeps me informed; approachable and helpful rather than critical; good knowledge of the job.

42. What degree of importance do you attach to the above?

A . . . B . . . C . . . D . . . E . . . F . . . G		
Moderate	High	Very High
Importance	Importance	Importance

43. To what degree are you satisfied with the LEADERSHIP/SUPERVISION aspects of your life?

A . . . B . . . C . . . D . . . E . . . F . . . G		
Highly		Highly
Dissatisfied	Neutral	Satisfied

EQUITY: Equal opportunity in the Air Force; a fair chance at promotion; an even break in my job/assignment selections.

44. What degree of importance do you attach to the above?

A . . . B . . . C . . . D . . . E . . . F . . . G
Moderate High Very High
Importance Importance Importance

45. To what degree are you satisfied with the EQUITY aspects of your life?

A . . . B . . . C . . . D . . . E . . . F . . . G
Highly Highly
Dissatisfied Neutral Satisfied

PERSONAL GROWTH: To be able to develop individual capacities, education/training; making full use of my abilities; the chance to further my potential.

46. What degree of importance do you attach to the above?

A . . . B . . . C . . . D . . . E . . . F . . . G
Moderate High Very High
Importance Importance Importance

47. To what degree are you satisfied with the PERSONAL GROWTH aspects of your life?

A . . . B . . . C . . . D . . . E . . . F . . . G
Highly Highly
Dissatisfied Neutral Satisfied

PERSONAL STANDING: To be treated with respect; prestige;  
dignity; reputation; status.

48. What degree of importance do you attach to the above?

A. . . B. . . C . . . D . . . E. . . F. . . G		
Moderate Importance	High Importance	Very High Importance

49. To what degree are you satisfied with the PERSONAL STANDING aspects of your life?

A. . . B. . . C . . . D . . . E. . . F. . . G		
Highly Dissatisfied	Neutral	Highly Satisfied

HEALTH: Physical and mental well-being of self and dependents; having illnesses and ailments detected, diagnosed, treated and cured; quality and quantity of health care services provided.

50. What degree of importance do you attach to the above?

A. . . B. . . C . . . D . . . E. . . F. . . G		
Moderate Importance	High Importance	Very High Importance

51. To what degree are you satisfied with the HEALTH aspects of your life?

A. . . B. . . C . . . D . . . E. . . F. . . G		
Highly Dissatisfied	Neutral	Highly Satisfied

# 제 1 부

\* 답중에서 당신에게 맞는 답 꼭 하나에만 O 표시하여 주십시오.

(보기) 당신은 어느나라 사람입니까?

- (A) 한국 B. 미국 C. 영국

1. 당신의 현재 계급은?

- |       |       |        |        |
|-------|-------|--------|--------|
| A. 대령 | G. 준위 | M. 이병  | S. 4급장 |
| B. 중령 | H. 상사 | N. 율령  | T. 4급을 |
| C. 소령 | I. 중사 | O. 2급장 | U. 5급장 |
| D. 대위 | J. 하사 | P. 2급을 | V. 5급을 |
| E. 중위 | K. 병장 | Q. 3급장 | W. 임시직 |
| F. 소위 | L. 상병 | R. 3급을 |        |

2. 당신이 현재 일하고 있는 곳은?

- A. 국방부 B. 육군 C. 해군 D. 공군

3. 현재 당신이 소속하고 있는 육해공군 혹은 국방부에서 몇년이나 재직하였습니까?

- |                |                |                  |
|----------------|----------------|------------------|
| A. 1년 미만       | H. 7년 이상 8년 미만 | O. 14년 이상 15년 미만 |
| B. 1년 이상 2년 미만 | I. 8 " 9 "     | P. 15 " 16 "     |
| C. 2 " 3 "     | J. 9 " 10 "    | Q. 16 " 17 "     |
| D. 3 " 4 "     | K. 10 " 11 "   | R. 17 " 18 "     |
| E. 4 " 5 "     | L. 11 " 12 "   | S. 18 " 19 "     |
| F. 5 " 6 "     | M. 12 " 13 "   | T. 19 " 20 "     |
| G. 6 " 7 "     | N. 13 " 14 "   | U. 20년 이상        |

4. 현재 당신이 소속하고 있는 육해공군 혹은 국방부에서 몇년이나 공무원 종사자로서 재직하였습니까?

- |                |                |                  |
|----------------|----------------|------------------|
| A. 1년 미만       | H. 7년 이상 8년 미만 | O. 14년 이상 15년 미만 |
| B. 1년 이상 2년 미만 | I. 8 " 9 "     | P. 15 " 16 "     |
| C. 2 " 3 "     | J. 9 " 10 "    | Q. 16 " 17 "     |
| D. 3 " 4 "     | K. 10 " 11 "   | R. 17 " 18 "     |
| E. 4 " 5 "     | L. 11 " 12 "   | S. 18 " 19 "     |
| F. 5 " 6 "     | M. 12 " 13 "   | T. 19 " 20 "     |
| G. 6 " 7 "     | N. 13 " 14 "   | U. 20년 이상        |

5. 부상가족수는 몇명입니까? 당신 자신은 포함시키지 마십시오. 결혼을 하지 않았더라도 부상할 사람이 있으면 포함시키십시오.

- |        |        |           |
|--------|--------|-----------|
| A. 없음  | D. 3 명 | G. 6 명    |
| B. 1 명 | E. 4 " | H. 7 "    |
| C. 2 " | F. 5 " | I. 8 명 이상 |

6. 당신의 성별은?

- A. 남자 B. 여자

7. 당신의 최종 학력은?

- |                |              |
|----------------|--------------|
| A. 고등학교 중퇴     | F. 대학 4학년 중퇴 |
| B. 고졸          | G. 대졸        |
| C. 대학 1학년 중퇴   | H. 대학원 중퇴    |
| D. " 2 "       | I. 대학원 졸     |
| E. " 3 "       | J. 박사과정 중퇴   |
| (2년제 초·대학졸 포함) | K. 박사        |

8. 당신의 결혼 상태 (狀態)는?

- A. 결혼 했음  
B. 결혼 한적 없음  
C. 결혼 한적 있으나 현재는 독신임.

9. 당신이 현재 하고 있는 일은?

- A. 관리 행정요원  
B. 키 펀치 요원  
C. 프로그래머  
D. 오퍼레이터 (자료관리요원 포함)  
E. 설계요원 (SYSTEM DESIGNER)

10. 당신이 컴퓨터 업무를 그대로 계속한다면 어떤 업무에 종사하고 싶습니까?

- A. 관리 행정요원  
B. 키 펀치 요원  
C. 프로그래머  
D. 오퍼레이터 (자료관리요원 포함)  
E. 설계요원 (SYSTEM DESIGNER)

11. 당신이 현재 일하고 있는 육해공군 혹은 국방부에서 언제까지 일하고 싶습니까?

- A. 가능한 한 일할수 있을 때까지 이곳에서 일하고 싶다.  
B. 이곳에서 나가고 싶은 생각이 별로 없다.  
C. 보통이다.  
D. 얼마간 일하다가 나가고 싶다.  
E. 가능한 한 빠른 시일 내에 나가고 싶다.

12. 당신은 현재로부터 지난 1년 동안 몇일간의 휴가를 받았습니까?

- |           |           |          |
|-----------|-----------|----------|
| A. 없음     | C. 2주일 정도 | E. 4주 이상 |
| B. 1주일 정도 | D. 3주일 정도 |          |

13. 당신은 현재로부터 지난 1년 동안 몇일이나 시간의 근무 (야간 혹은 휴일근무)를 하였습니까?

- |           |            |            |
|-----------|------------|------------|
| A. 없음     | D. 11~15 일 | G. 26~30 일 |
| B. 1~5 일  | E. 16~20 일 | H. 31~35 일 |
| C. 6~10 일 | F. 21~25 일 | I. 36일 이상  |

14. 당신이 현재 하고 있는 일과 비슷한 일을 하는 일반사회인의 응답(수당 및 각종보너스를 포함해서)과 비교해 볼 때 당신의 봉급을 어떻게 생각합니까?

- A. 사회인의 봉급보다 훨씬 높다고 생각한다.
- B. 사회인의 봉급보다 조금 높다고 생각한다.
- C. 비슷하다고 생각한다.
- D. 사회인의 봉급보다 조금 못하다고 생각한다.
- E. 사회인의 봉급보다 훨씬 못하다고 생각한다.

15. 단시일내에 이 직장을 그만두게 된다면 현재 맡고 있는 일과 같은 종류의 일을 구하는 힘들것이다.

- A. 절대 아니다
- B. 아니다
- C. 잘 모르겠다
- D. 그렇다.
- E. 확실히 그렇다.

16. 당신이 매달 받는 돈에서 주택비율 필요한 경비를 제외하고 저축을 할수 있는 경우는 얼마나 됩니까?

- A. 전혀 없다
- B. 거의 없다
- C. 가끔 있다
- D. 자주 있다
- E. 항상 있다.

17. 당신은 어디에 살고 있습니까?

- A. 하숙
- B. 월세
- C. 전세
- D. 자가.

18. 당신은 얼마나 큰 집에 살고 있습니까? (당신네 가족이 쓰는 크기만 따진다면)

- |           |             |
|-----------|-------------|
| A. 5평 이하  | F. 30평 이하   |
| B. 10평 이하 | G. 35 "     |
| C. 15 "   | H. 40 "     |
| D. 20 "   | I. 45 "     |
| E. 25 "   | J. 45평보다 큼. |

19. 현재 당신집에서 같이 살고있는 당신가족수는 얼마입니까? 당신자신은 제외하십시오.

- |        |        |
|--------|--------|
| A. 0 명 | F. 5 명 |
| B. 1 " | G. 6 " |
| C. 2 " | H. 7 " |
| D. 3 " | I. 8 " |
| E. 4 " | J. 9 " |

20. 당신이 현재의 직장에서 오래도록 일하고 싶어 한다면 그것은 무엇 때문이었습니까?

- A. 교육을 받을 수 있는 기회가 있기 때문에.  
B. 내가 현재 맡고 있는 업무의 매력 때문에.  
C. 봉급 및 수당 때문에.  
D. 진급의 기회가 있기 때문에.  
E. 20년의 근무후에 매달 연금을 받을 수 있기 때문에.  
F. 국가를 위해 봉사할 수 있기 때문에.  
G. 오래 일하고 싶지 않다.

2. 당신이 현재의 직장에서 오래도록 일하고 싶은 생각이 없다면 그것은 무엇 때문이었습니까?

- A. 배가 편지 말고 있는 업무가 쉬기 때문에.
- B. 봉급 및 수당이 적기 때문에.
- C. 진급제도가 쉬기 때문에.
- D. 진급의 기회가 적기 때문에.
- E. 미래의 전망이 적기 때문에.
- F. 주위 사람들 때문에.
- G. 지위 통솔하는 분위기가 쉬기 때문에.
- H. 싫은 것이 없다.

• 22 당신은 현재 당신이 하고 있는 일에 대해서 얼마나 자주 만족하고 있습니까?

- A. 항상  
B. 대부분  
C. 상당히 많은 시간  
D. 반정도  
E. 때때로  
F. 거의 없음  
G. 없음

• 23. 당신은 현재 당신이 하고 있는 일을 얼마나 좋아 합니까?

- A. 음모한다
- B. 싫어한다.
- C. 좋아하지 않는다.
- D. 무관심 하다
- E. 좋아한다.
- F. 열렬히 좋아한다.
- G. 사랑할 정도로 좋아한다.

24. 당신이 현재 맡고 있는 일이 당신의 계급이나 급수에 비해 적당한 일이라고 생각합니까?

- [illegible]

\* 직업이란 여러분의 경우에 공무원, 문관, 또는 군역의 신분으로 있는 것을 말하며  
 임종이란 여러분의 하는 일 즉 여러분의 경우에는 공무원업무가 될 것입니다.  
 '인사장교'의 경우에 직급은 조연이고 임종은 인사업무가 될 것입니다.

25. 당신의 임종 (공무원업무)을 바꾸는 문제에 대해 당신은 어떻게 느끼고 있습니까?

- A. 가능하다면 당장 이 임종을 그만 두겠다.
- B. 현재 받는 월급을 받을 수만 있다면 다른 임종으로 바꾸고 싶다.
- C. 현재의 임종과 직업을 모두 바꾸고 싶다.
- D. 다른 임종으로 바꾸어서 원하고 싶다.
- E. 현재의 임종을 바꾸고 싶은 생각이 많지는 않다. 그러나 더 좋은 임종이 생긴다면 바꾸고 싶다.
- F. 나에게서는 현재의 임종보다 더 좋은 임종이 있을 것 같지 않다.
- G. 어떠한 임종과도 바꾸어서 원하고 싶지는 않다.

26. 다른 사람과 비교해서 당신을 생각해 볼 때 당신의 임종을 어떻게 느끼고 있습니까?

- A. 어떤 사람도 내가 내 임종을 좋아하는 것 만큼, 자기 임종을 좋아하는 사람은 없을 것이다.
- B. 대부분의 사람들이 자기를 임종을 좋아하는 것 보다, 훨씬 더 나는 내 임종을 좋아한다.
- C. 대부분의 사람들이 자기를 임종을 좋아하는 것 보다 더 나는 내 임종을 좋아한다.
- D. 대부분의 사람들이 자기를 임종을 좋아하는 것 만큼 나는 내 임종을 좋아한다.
- E. 대부분의 사람들이 자기를 임종을 싫어하는 것 보다 더 나는 내 임종을 싫어한다.
- F. 대부분의 사람들이 자기를 임종을 싫어하는 것 보다 훨씬 더 나는 내 임종을 싫어한다.
- G. 어떤 사람도, 내가 내 임종을 싫어하는 것 만큼 자기 임종을 싫어하는 사람은 없을 것이다.

27. 당신의 현재 업무를 당신은 어떻게 평가하고 있습니까?

- A. 단조롭다.
- B. 머리를 별로 안 써도 할 수 있다.
- C. 조금 머리를 써야 한다.
- D. 머리를 써야 할 수 있다.
- E. 머리를 쓰고 노력을 해야 할 수 있다.

28. 당신의 업무를 효과적으로 수행하기 위하여 필요하다고 생각하는 만큼의 자수가 당신에게 주어져 있습니까?

- A. 있다.
- B. 거의 없다.
- C. 때때로 있다.
- D. 자주 있다.
- E. 항상 있다.

\* 직점상관이란 당신을 직접 통솔하는 사람을 말합니다.

29. 당신의 개인적 문제를 상의하기 위하여 당신의 직점상관과 얼마나 자주 얘기를 나눕니까?

- A. 전혀 없다.
- B. 거의 없다.
- C. 간혹 있다.
- D. 자주 있다.
- E. 매우 자주 있다.



30. 당신의 직접상관은 당신이 업무를 훌륭히 해냈을 때 이를 인정하는 것 같습니까?

- A. 전혀 아닌 것 같다.  
B. 거의 아닌 것 같다.  
C. 간혹 인정하는 것 같다.  
D. 자주 인정하는 것 같다.  
E. 훌륭한 일을 했을 때 마다 인정하는 것 같다.

31. 당신의 현재 계급 또는 급수로 진급된 이후로 얼마나 경과되었습니까?

- A. 1년 미만 D. 3년 이상 4년 미만 G. 6년 이상 7년 미만  
B. 1년 이상 2년 미만 E. 4 ~ 5 " H. 7 " 8 "  
C. 2 " 3 " F. 5 " 6 " I. 8년 이상

32. 정성적으로는 진급이 된다면 주로 몇 번 있겠단 당신이 진급할 수 있습니까?

- A. 0번 D. 3번 G. 6번  
B. 1 " E. 4 " H. 7 "  
C. 2 " F. 5 " I. 8년 이상

33. 당신은 어떤 과목을 제일 좋아합니까?

- A. 어학 B. 수학 C. 과학 D. 예술 (예능) E. 사회

## 제 2 부

\* 문제에 대한 답을 상상의 점수에 맞게 등락이로 표시하여 주십시오.

(보기) 당신은 얼마나 부자입니까?

- A B C D (E) F G → 보통보다 조금 잘 산다고 생각하는 경우.  
가난하다 보통이다 부자다

경제적 기본조건이란 인간의 기본조건인 의·식·주에 관한 만족도 즉 당신이 생활을 영위하는데 있어서 수급할 만한 기본조건을 유지하는 것을 말하는 것입니다.

34. 당신의 직업을 선택하는 데 있어서 위의 경제적 기본조건을 당신은 얼마나 중요하다고 생각합니까?

- A B C D E F G  
별로 중요하지 않다 보통이다 아주 중요하다

35. 당신의 현재 생활에서 당신의 직업이 주는 위의 경제적 기본조건에 대해 당신은 얼마나 만족합니까?

- A B C D E F G  
아주 불만족스럽다 보통이다 매우 만족하고 있다

경제적 보장이란 취직의 보장 은퇴후의 연금, 보험금을 당신 자신과 당신의 가족을 보호하는 제도입니다.

36. 당신의 직업을 선택하는 데 있어서 위의 경제적 보장을 당신은 얼마나 중요하다고 생각합니까?

- A B C D E F G  
별로 중요하지 않다 보통이다 아주 중요하다

37. 당신의 현재 생활에서 당신의 직업이 주는 위의 경제적 보장에 대해 당신은 얼마나 만족합니까?

- A B C D E F G  
아주 불만족스럽다 보통이다 매우 만족하고 있다

여가선용이란 당신 자신의 시간을 갖거나, 또는 교우들과 사귀거나, 또는 당신의 취미활동을 할수 있는 시간에 대한 양이나 활동을 말하는 것입니다.

38. 당신의 직업을 선택하는데 있어서 위의 여가선용을 당신은 얼마나 중요하다고 생각합니까?

A	B	C	D	E	F	G
별로중요하지않다		보통이다				매우중요하다

39. 당신의 현재 생활에서 당신의 직업이 주는 위의 여가선용에 대해 당신은 얼마나 만족합니까?

A	B	C	D	E	F	G
매우불만족스럽다		보통이다				매우만족하고있다

업무란 당신의 업무를 하면서 당신 업무에 대한 긍지, 직업에 대한 만족, 또한 당신의 업무에 대한 심취와 당신의 노력에 대한 주위의 이식응을 당신이 느끼는 것입니다.

40. 당신의 직업을 선택하는데 있어서 위의 업무를 당신은 얼마나 중요하다고 생각합니까?

A	B	C	D	E	F	G
별로중요하지않다		보통이다				매우중요하다

41. 당신의 현재 생활에서 당신의 직업이 주는 위의 업무에 대해 당신은 얼마나 만족합니까?

A	B	C	D	E	F	G
매우불만족스럽다		보통이다				매우만족하고있다

지휘감독분위기란 당신을 지휘통솔하고 감독하는 사람이 당신의 관심사를 또는 당신직장의 관심사를 얼마나 알고 있으며, 당신을 비판하기 보다는 존중하며, 또 당신 업종에 대해 충분히 알고있다가 하는 것을 말하는 것입니다. 지휘감독하는 사람은 해낼수도 있으며 버틸수도 있으므로 당신에게 직접관계되는 지휘감독자들의 전체적 분위기를 말하는 것입니다.

42. 당신의 직업을 선택하는데 있어서 위의 지휘감독분위기를 당신은 얼마나 중요하다고 생각합니까?

A	B	C	D	E	F	G
별로중요하지않다		보통이다				매우중요하다

43. 당신의 현재 생활에서 당신의 직업이 주는 위의 지휘감독분위기에 대해 당신은 얼마나 만족합니까?

A	B	C	D	E	F	G
매우불만족스럽다		보통이다				매우만족하고있다

기회준등이란 진급이나 승급에 있어서의 공평한 대우 심지어 업무활량을 받더라도 업무내용을 지장받는 경우에 이르기까지 공평하게 대우를 받는지 하는 것입니다. 물론 장래에 대한 대우의 우려도 포함합니다.

44. 당신의 직업을 선택하는데 있어서 위의 기회준등을 당신은 얼마나 중요하다고 생각합니까?

A	B	C	D	E	F	G
별로중요하지않다		보통이다				매우중요하다

45. 당신의 현재 생활에서 당신의 직업이 주는 위의 기회준등에 대해 당신은 얼마나 만족합니까?

A	B	C	D	E	F	G
매우불만족스럽다		보통이다				매우만족하고있다

개인적 성장이란 개인의 능력을 얼마나 신장시킬수 있는가 하는 것입니다. 여러분 지금은, 할수없는 일이라든 교육이나 훈련을 통해서 할수있게 되는 경우가 대부분입니다. 물론 개인의 능력의 한계가 있을 것이며 이러한 한계는 개인마다 다 다를 것입니다. 이러한 당신의 잠재력을 깨울수 있는 기회가 당신에게 얼마나 주어지는가 하는 것입니다.

46. 당신의 직업을 선택하는데 있어서 위의 개인적 성장을 당신은 얼마나 중요하다고 생각합니까?

A	B	C	D	E	F	G
별로중요하지않다			보통이다			매우중요하다

47. 당신의 현재생활에서 당신의 직업이 주는 위의 개인적 성장에 대해 당신은 얼마나 만족합니까?

A	B	C	D	E	F	G
매우불만족스럽다			보통이다			매우만족해있다

개인적 입장이란 당신의 위신, 권위 및 명성에 대해 어떻게 대우를 받아가 하는 것입니다.

48. 당신의 직업을 선택하는데 있어서 위의 개인적 입장을 당신은 얼마나 중요하다고 생각합니까?

A	B	C	D	E	F	G
별로중요하지않다			보통이다			매우중요하다

49. 당신의 현재 생활에서 당신의 직업이 주는 위의 개인적 입장에 대해 당신은 얼마나 만족합니까?

A	B	C	D	E	F	G
매우불만족스럽다			보통이다			매우만족해있다

건강복지란 당신과 당신의 가족에 대한 육체적 정신적 안녕과 복지를 말하는 것입니다. 병에 대한 정기검진과 관찰, 치료를 하고 치유시켜주는 것을 말하며 이러한 서비스가 질적으로나 양적으로 갖추어 주어가 하는 문제입니다.

50. 당신의 직업을 선택하는데 있어서 위의 건강복지를 당신은 얼마나 중요하다고 생각합니까?

A	B	C	D	E	F	G
별로중요하지않다			보통이다			매우중요하다

51. 당신의 현재 생활에서 당신의 직업이 주는 위의 건강복지에 대해 당신은 얼마나 만족합니까?

A	B	C	D	E	F	G
매우불만족스럽다			보통이다			매우만족해있다

※ 여러분 오랫동안 수고하셨습니다

APPENDIX B

The Calculation of Factor Scores

FACTOR SCORE CALCULATION FOR THE  
REGRESSION MODEL OF CAREER INTENT

$$\begin{aligned}\text{Factor 1} &= .27449*(Q34 \times Q35 - 15.6657)/7.8269 \\ &\quad + .30756*(Q36 \times Q37 - 16.9427)/8.5063 \\ &\quad + .12126*(Q40 \times Q41 - 24.9844)/10.5783 \\ &\quad + .12576*(Q42 \times Q43 - 22.7617)/11.1913 \\ &\quad + .20983*(Q44 \times Q45 - 23.3938)/10.332 \\ &\quad + .16438*(Q46 \times Q47 - 25.3005)/11.0006 \\ &\quad + .18288*(Q48 \times Q49 - 22.5751)/9.2261 \\ &\quad + .23383*(Q50 \times Q51 - 22.712)/9.975 \\ \text{Factor 2} &= .30220*(Q3 - 5.8238)/5.1942 \\ &\quad + .29064*(Q4 - 3.9637)/3.0862 \\ &\quad + .26201*(Q5 - 2.6891)/1.8248 \\ &\quad + .26022*(Q31 - 2.5873)/2.1559 \\ \text{Factor 3} &= .32494*(Q22 - 3.6425)/1.4619 \\ &\quad + .35938*(Q23 - 4.4404)/1.0041 \\ &\quad + .35932*(Q25 - 4.6891)/1.4422 \\ &\quad + .28216*(Q26 - 4.2539)/1.284 \\ \text{Factor 4} &= .53094*(Q18 - 4.8229)/2.793 \\ &\quad + .56267*(Q19 - 4.9792)/2.0567 \\ \text{Factor 5} &= .35581*(Q28 - 3.0725)/1.1569 \\ &\quad + .43858*(Q29 - 2.4767)/1.0056 \\ &\quad + .36513*(Q37 - 3.0053)/1.0209 \\ \text{Factor 6} &= -.60858*(Q14 - 4.5759)/.6011 \\ &\quad + .48018*(Q15 - 2.1451)/.1681\end{aligned}$$

## VITA

Cho Kil Sang was born in Seoul Korea on December 15, 1942. He majored in Mathematics and graduated from the University of Seong Kyun Kwan in Seoul. He was commissioned as a Second Lieutenant in the Korean Air Force in 1968 and started his Air Force career as a weather forecaster. Three years later, he was assigned to computer work and, in 1978, he was selected to attend the Air Force Institute of Technology at Wright-Patterson Air Force Base, Ohio. He is married to Im Cheong Ja and has two daughters and one son, Seong Yeon, Soo Yeon, and Yoo Il.

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